

Review Form 3

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_123630
Title of the Manuscript:	Adoption of Cold reeling, as a tool of selection in breeding of "Nistari" a multivoltine breed of mulberry silkworm (Bombyx. mori) in West Bengal, India.
Type of the Article	Original Research Article

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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>
<p>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.</p>	<p>This manuscript is important for the scientific community, particularly in the field of sericulture and insect breeding, as it explores a novel approach to enhancing economic traits in silkworms by using cold reeling as a selection tool. The study addresses a critical issue faced by breeders—preserving pupae during filament length assessment—by avoiding the use of high temperatures, thus allowing the selection of superior parents for future generations. I like this manuscript because it provides a practical and innovative solution to improve filament length in Nistari silkworms, a significant breed in West Bengal's sericulture industry. The findings are valuable as they suggest a method that can be adapted to other breeds and potentially improve overall silk production, supporting the broader goals of sustainable sericulture practices.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The current title, "Adoption of Cold Reeling, as a Tool of Selection in Breeding of 'Nistari' a Multivoltine Breed of Mulberry Silkworm (<i>Bombyx mori</i>) in West Bengal, India," is informative but could be more concise and engaging. It might also benefit from highlighting the key focus on improving filament length, which is a central theme of the study.</p> <p>Here are some alternative titles that may better capture the essence of the manuscript:</p> <ol style="list-style-type: none"> 1. "Improving Filament Length in Nistari Silkworms Through Cold Reeling: A Novel Breeding Approach" 2. "Enhancing Economic Traits in Nistari Silkworms Using Cold Reeling as a Selection Tool" 3. "Cold Reeling for Selective Breeding: Boosting Filament Length in Nistari Mulberry Silkworms" <p>These alternatives emphasize the main goals of the research—enhancing filament length and using cold reeling as a novel breeding tool—while keeping the titles concise and clear.</p>	
<p>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.</p>	<p>The abstract of the article provides a good overview of the study by introducing the problem (deterioration of economic traits due to environmental conditions), the method (cold reeling for selection of high filament length parents), and the findings (improvement in filament length of Nistari lines). However, it can be enhanced for clarity and comprehensiveness by including more specific details about the methodology and results, and by making the purpose and significance of the study clearer.</p> <p>Suggested Additions:</p> <ol style="list-style-type: none"> 1. Purpose/Objective Clarification: Clearly state the primary aim of the study at the beginning. For example, "This study aims to improve the filament length of Nistari, a multivoltine breed of mulberry silkworm, by adopting cold reeling as a selection tool." 2. Methodology Details: Briefly mention key aspects of the methodology, such as the number of generations observed, the conditions under which cold reeling was performed, and any specific measurements or comparisons made. For instance, "Cold reeling was performed on six generations of Nistari silkworms, and filament length was measured in both Marked and Plain lines." 3. Key Results: Include specific results or data points to highlight the improvement in filament length. For example, "A gradual increase in filament length was observed, with Nistari Marked lines showing an increase from 378m to 454m over six generations." 4. Significance and Applications: End with a sentence on the broader implications of the findings, such as "This approach could enhance the economic value of Nistari silkworms and may be applicable to other breeds, potentially boosting silk production in West Bengal." <p>Suggested Deletions or Modifications:</p> <p>Redundancy: Remove any redundant phrases that don't add significant value or specificity to the abstract. For example, the initial mention of the environmental impacts could be shortened since the focus is on the selection method.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The manuscript has a reasonable structure, covering the key components of a scientific paper: Introduction, Materials and Methodology, Results, Discussion, and Conclusion. Here are some suggestions for refining the subsections and structure:</p> <ol style="list-style-type: none"> 1. Abstract 	

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	<p>Keep this section concise, focused, and informative, providing a clear snapshot of the objectives, methods, results, and significance.</p> <p>2. References Ensure all references are current, relevant, and properly formatted according to the journal's guidelines.</p> <p>3. Additional Sections (if applicable)</p> <ul style="list-style-type: none"> • Acknowledgments: Mention funding sources, collaborators, or other contributions. • Conflict of Interest Statement: To disclose any potential conflicts. • Supplementary Material: If there are additional data, figures, or methodological details that are relevant but too extensive for the main text. <p>By making these adjustments, the manuscript's structure will be clearer, more logical, and easier to follow, enhancing its readability and impact on the scientific community.</p>	
<p>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.</p>	<p>The manuscript appears to be scientifically robust and technically sound due to its clear experimental design and systematic approach to addressing a specific problem in silkworm breeding. By implementing cold reeling, the study provides a novel and practical method for enhancing filament length in Nistari lines without sacrificing pupae, which directly addresses the limitations of conventional reeling methods. The data presented shows consistent improvements in filament length across multiple generations, demonstrating the effectiveness of the selection process and supporting the study's hypothesis. Additionally, the manuscript discusses the broader implications and potential applications of this method in the sericulture industry, making it a valuable contribution to the field. The methodology is well-detailed, allowing for reproducibility, and the results are adequately supported by the presented data, adding to the scientific validity of the study.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>:-</p>	<p>The references in the manuscript appear to be relevant and cover a range of topics related to silkworm breeding, genetics, and sericulture. However, some references are relatively older, and it might be beneficial to include more recent studies to enhance the current relevance of the manuscript. Incorporating recent research articles, particularly those published within the last five years, could provide updated insights on the latest advancements in silkworm breeding and selection techniques. Here are a few suggestions for additional references that might strengthen the manuscript:</p> <ol style="list-style-type: none"> 1. Recent Advances in Silkworm Breeding and Genetics- This type of review article could provide an overview of the latest breeding techniques and genetic advancements that are relevant to the study. 2. Application of Cold Reeling Techniques in Silkworm Breeding- Although specific studies on cold reeling might be limited, articles focusing on innovative reeling or breeding technologies could be relevant. 3. Impacts of Climate Change on Sericulture- Since the manuscript touches on environmental impacts on silkworm traits, adding more recent studies on how climate change is influencing sericulture could provide a broader context. 4. Recent Genetic Studies on Multivoltine Silkworms- Including recent genetic analysis or studies specific to Nistari lines or similar multivoltine breeds could add depth to the manuscript. <p>These additions would help in updating the literature cited and provide a stronger foundation for the study's findings and significance.</p>	

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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 and English quality of the article are generally clear and understandable, but there are areas that could benefit from refinement to meet the standards expected in scholarly communications. Here are some observations and suggestions:</p> <ol style="list-style-type: none"> Grammar and Syntax: While the manuscript is mostly grammatically correct, some sentences are lengthy and complex, making them difficult to follow. Breaking these into shorter, more concise sentences can enhance readability. Clarity and Precision: Certain sections contain redundant phrases or could be more precise. For instance, simplifying technical jargon and clearly defining terms on their first use would improve accessibility for a broader scientific audience. Consistency: Ensure consistency in the use of terms and formatting throughout the manuscript. For example, maintaining uniformity in how generations are labelled (e.g., G1 vs. Generation 1) would make the text more professional and easier to read. Flow and Structure: The manuscript would benefit from improved flow between sections, with more explicit transitions that guide the reader through the rationale, methods, results, and discussion. Adding linking phrases can help connect the ideas more cohesively. Formal Tone: Scholarly communications require a formal tone, and while the manuscript generally maintains this, some sentences could be rephrased to sound more formal and academically appropriate. Proofreading: A thorough proofreading for minor typographical errors, punctuation issues, and awkward phrasing would further enhance the overall quality of the manuscript. <p>Overall, with some editing and polishing, the language quality can be elevated to fully meet the standards of scholarly communication.</p>	
<p>Optional/General comments</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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