General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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<mark>**Important Policies Regarding Peer Review**</mark>

Peer review Comments Approval Policy: https://r1.reviewerhub.org/peer-review-comments-approval-policy/
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<mark>**PART 1:**</mark> **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.	This manuscript holds significant importance for the scientific community as it provides detailed insights into the phytoplankton diversity and their role as biological indicators in assessing water quality. By documenting the seasonal variations of phytoplankton classes such as Cyanophyceae, Chlorophyceae, and Bacillariophyceae in Ranchi Lake, this study aids in understanding the ecological dynamics of freshwater ecosystems. Additionally, it highlights the implications of pollution and eutrophication, contributing to water resource management strategies. The findings can serve as a benchmark for future studies in aquatic ecosystem conservation and environmental monitoring.	

Is the title of the article suitable? **(If not please suggest an alternative title)**	The current title, "Assessment of Phytoplankton Abundance of Ranchi Lake (Bada Talab)," is descriptive but could be more specific to highlight the ecological and environmental implications of the study. A suitable alternative could be: **"Seasonal Dynamics of Phytoplankton Diversity in Ranchi Lake: Indicators of Water Quality and Ecosystem Health."**	
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 of the article provides a good overview of the study but can be improved for comprehensiveness and clarity. Here are my suggestions: Suggestions for Improvement: 1. Clarity and Focus: The abstract should clearly state the objectives of the study. For instance, mention that the aim is to assess phytoplankton diversity and its relationship with water quality. Avoid vague terms like "ecosystem is the integration of living and non-living organisms" and focus on the specific context of the study. 2. Key Findings: Include more specific results in terms of phytoplankton diversity and their implications for water quality. For example, mention the dominance of specific genera (e.g., Microcystis, Spirogyra) and their role as pollution indicators. 3. Methods and Scope: Briefly mention the methodology (e.g., sampling techniques, time frame, and analysis methods) to provide a snapshot of how the study was conducted. 4. Environmental Implications: Highlight the broader significance of the findings, such as the potential	

	application in water resource management and pollution monitoring. 5. Relevance and Impact: Add a concluding statement about the study's relevance to environmental conservation or its contribution to the scientific understanding of freshwater ecosystems.	
Is the manuscript scientifically, correct? Please write here.	The manuscript is scientifically valid but requires improvements for clarity and rigour. Data inconsistencies (e.g., timeline discrepancies) and limited methodological details on environmental parameters weaken its impact. Adding statistical analysis (e.g., ANOVA) and deeper ecological interpretations would enhance validity. Typographical errors and oversimplifications in the abstract need revision. Strengthening the discussion and providing actionable recommendations in the conclusion would significantly improve its scientific relevance and contribution to aquatic ecosystem research.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references provided are relevant but could benefit from updates and additional sources to ensure recent and comprehensive coverage of the topic. Strengths: 1. Core Literature: The references include classic works like Hutchinson (1957) and more recent studies like Zohary et al. (2021), providing a mix of foundational and updated insights. 2. Diversity: The cited works cover various aspects of aquatic ecosystems, including water quality, phytoplankton diversity, and ecological indicators. Limitations: 1. Recency: The majority of the references are from earlier years, with few citations from the last five years. Including more recent studies (post-2020) would ensure the manuscript aligns with current scientific trends. 2. Geographical Context: Few references focus on studies conducted in Indian freshwater ecosystems, which could strengthen the regional relevance of the work.	

Is the language/English quality of the article suitable for scholarly communications?	The language of the article is moderately suitable for scholarly communication but requires significant improvement in grammar, syntax, and scholarly tone. Errors like informal phrasing, inconsistent terminology, and typographical issues detract from professionalism. Refining sentence structure and ensuring precise academic language will enhance clarity and make it suitable for publication.	
Optional/General comments	1. The manuscript addresses a relevant ecological topic with implications for water quality and ecosystem health. 2. Data consistency, especially regarding timelines and methodology, needs improvement. 3. Incorporating statistical analysis will strengthen the findings. 4. Recent references and region-specific studies should be added for broader relevance. 5. Language polishing is essential to enhance readability and scholarly quality.	

PART 2:

	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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