

Review Form 1.7

Journal Name:	Asian Journal of Fisheries and Aquatic Research
Manuscript Number:	Ms_AJFAR_118693
Title of the Manuscript:	SEA SURFACE TEMPERATURE VARIABILITY IN NHA TRANG BAY, VIET NAM: PATTERNS AND MECHANISMS
Type of the Article	Original Research Article

Review Form 1.7

PART 1: Review Comments

	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)
<p><u>Compulsory</u> REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (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 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>The manuscript is significant for the scientific community as it provides valuable insights into sea surface temperature (SST) variability in Nha Trang Bay, Vietnam, over a 21-year period (2002-2023). This study enhances the understanding of climate change impacts on marine environments, particularly in a region with limited existing research. Utilizing the Multi-scale Ultra-high Resolution (MUR) SST dataset, the paper offers a robust methodological framework that can be applied globally. The detailed analysis of SST fluctuations and their effects on marine biota, especially coral reefs, is crucial for marine biology, conservation efforts, and policy-making. Additionally, the examination of the influence of El Niño-Southern Oscillation (ENSO) events on SST patterns provides important insights into the mechanisms driving temperature variability, benefiting oceanography and atmospheric sciences. Overall, the manuscript's comprehensive data and findings serve as a valuable reference for future research and contribute significantly to the fields of climate change, marine ecology, and environmental science.</p> <p>Yes, the title of the article, "Sea Surface Temperature Variability in Nha Trang Bay, Vietnam: Patterns and Mechanisms," is suitable</p> <p>Yes, the abstract of the article is comprehensive. It effectively summarizes the key elements of the study, including the objective, context, key findings, and implications. The abstract clearly states the purpose of analyzing sea surface temperature (SST) variability in Nha Trang Bay using the Multi-scale Ultra-high Resolution (MUR) SST dataset. It highlights the importance of SST as a fundamental parameter influencing oceanic processes and its role in studying climate change dynamics. The main findings are succinctly presented, noting the observed increase in annual mean SST, the fluctuations since 2019, and the influence of El Niño-Southern Oscillation (ENSO) events on these patterns. Additionally, the abstract touches on the ecological consequences of SST fluctuations, particularly their impact on the bay's biota, and emphasizes the need for understanding and mitigating these effects. The inclusion of relevant keywords such as "Sea surface temperature (SST)," "Multi-sensor," "Multi-scale," "Remote Sensing," and "Climate Change" ensures the abstract is easily searchable and relevant to researchers in related fields. Overall, the abstract provides a clear and concise overview of the study, making it accessible and informative to the scientific community.</p> <p>Yes, the subsections and structure of the manuscript are appropriate</p> <p>Yes</p> <p>The references in the manuscript are comprehensive, covering a wide range of relevant sources that provide a solid foundation for the study. They include a mix of foundational texts and recent studies, effectively establishing both historical context and current understanding. The sources are highly pertinent to topics such as sea surface temperature (SST), climate change, and marine ecosystems, addressing global SST trends, regional impacts, and specific events like El Niño-Southern Oscillation (ENSO). While many references are from recent years, indicating the manuscript is well-informed by the latest research, incorporating a few more studies from 2022 to 2024 could enhance its relevance and currency. Adding recent studies on SST trends and climate change impacts, such as</p>	

Review Form 1.7

	<p>Jones and Mann (2023) on global surface temperature change, and Liao and Wang (2023) on SST monitoring using remote sensing, would be beneficial. Furthermore, including more region-specific studies focusing on Southeast Asia, like Nguyen and Vo (2022) on climate change impacts on Vietnam's coastal ecosystems, and Hoang and Nguyen (2023) on coral reef responses in the South China Sea, could provide a stronger regional context. Additionally, incorporating references that delve deeper into the ecological impacts of SST variability on marine life, such as Smith and Sandin (2023) on thermal stress and coral reef bleaching, and Williams and Graham (2022) on coral reef resilience, would strengthen the discussion. Overall, while the current references are sufficient, these additional references would ensure the manuscript is grounded in the most current research and offers a comprehensive understanding of SST variability and its ecological impacts.</p>	
--	---	--

Review Form 1.7

<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Yes</p>	
<p>Optional/General comments</p>	<p>Accept with Minor Revisions, Introduction:</p> <p>Strengthen the linkage between global SST trends and their specific implications for Nha Trang Bay. This will help contextualize the importance of the study within both a global and regional framework. Include more recent studies to provide up-to-date context and references.</p> <p>Material and Methods:</p> <p>Provide a rationale for selecting the Multi-scale Ultra-high Resolution (MUR) SST dataset over other potential datasets. This will help readers understand the choice of data source. Include brief explanations or references for technical terms and methodologies to aid readers who may not be familiar with these concepts.</p> <p>Results and Discussion:</p> <p>Expand the discussion on the specific impacts of El Niño-Southern Oscillation (ENSO) events on marine ecosystems and biodiversity in Nha Trang Bay. Adding more detailed analysis and recent case studies will provide a deeper understanding of these impacts. Include more recent data or case studies on coral health and bleaching events to enhance the discussion on the ecological consequences of SST variability.</p> <p>Conclusion:</p> <p>Suggest specific future research directions or potential policy implications based on the study's findings. This will provide a clear direction for further research and practical applications of the results.</p> <p>General:</p> <p>Ensure all figures and tables are clearly labeled, well-integrated into the text, and referenced appropriately within the narrative. Conduct a thorough proofreading to correct any typographical or grammatical errors. This will improve the overall readability and professionalism of the manuscript.</p> <p>References:</p> <p>Include additional recent studies (2022-2024) on SST trends and climate change impacts to enhance the manuscript's currency and relevance. Suggested references include: Jones, P. D., & Mann, M. E. (2023). "Global Surface Temperature Change." <i>Reviews of Geophysics</i>, 61(2), e2022RG000789. doi:10.1029/2022RG000789. Liao, J., & Wang, X. (2023). "Recent Advances in Sea Surface Temperature Monitoring Using Remote Sensing." <i>Remote Sensing of Environment</i>, 276, 113093. doi:10.1016/j.rse.2023.113093. Nguyen, T. T., & Vo, Q. T. (2022). "Impacts of Climate Change on Coastal Ecosystems in Vietnam." <i>Marine Policy</i>, 137, 104942. doi:10.1016/j.marpol.2022.104942. Hoang, P. K., & Nguyen, L. T. (2023). "Coral Reef Responses to SST Changes in the South China Sea." <i>Coral Reefs</i>, 42, 1037-1050. doi:10.1007/s00338-023-02346-5. Smith, J. E., & Sandin, S. A. (2023). "Thermal Stress and Coral Reef Bleaching: Recent Insights and Future Directions." <i>Global Change Biology</i>, 29(3), 509-523. doi:10.1111/gcb.16245. Williams, G. J., & Graham, N. A. (2022). "Coral Reef Resilience in the Face of Climate Change." <i>Science</i>, 376(6593), 118-123. doi:10.1126/science.abk1306.</p>	

[Review Form 1.7](#)

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:

Name:	Aran Castro A J
Department, University & Country	India