

Name:	<a href="#">UTTAR PRADESH JOURNAL OF ZOOLOGY</a>
Manuscript Number:	Ms_UPJOZ_4584
Title of the Manuscript:	<b>Morphology and Molecular Taxonomic studies of Marine Sponges of Lakshadweep</b>
Type of the Article	

**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.

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**PART 1: Comments**

	<b>Reviewer's comment</b>	<b>Author's Feedback</b> <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>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.</b>	This study expands knowledge on Lakshadweep's sponge diversity, documenting a new species ( <i>Scalarispongia</i> sp.) and four new regional records. These findings enhance understanding of coral reef ecosystems and support future conservation and biodiversity research.	

<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	<i>Isn't title of the article suitable.</i>  "Morphological Notes on Marine Sponges of the Class Demospongiae and one Calcareous (Leucetta chagosensis) from Lakshadweep"	
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<p><b>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.</b></p>	<p><i>I have made adjustments to improve clarity, grammar, and flow while maintaining the original meaning.</i></p> <p>Knowledge about the sponge fauna of Lakshadweep has been scarce in recent years, with most modern taxonomic studies focusing on specific aspects. The aim of this study was to contribute to the understanding of sponge diversity and distribution in Lakshadweep.</p> <p>Currently, forty-three species of sponges have been recorded from the Arabian Sea based on two surveys. A total of 45 sponge species, belonging to 9 orders, 12 families, and 32 genera within the class Demospongiae, were documented. Among them, one new species (<i>Scalarispongia</i> sp.) was recorded for the first time in India, along with four new records for the Lakshadweep region: <i>Axinella minor</i>, <i>Haliclona cymaeformis</i>, <i>Callyspongia subarmigera</i>, and <i>Luffariella</i> sp.</p>	
<p><b>Is the manuscript scientifically, correct? Please write here.</b></p>	<p>The text has some problems with grammar, coherence and scientific accuracy, but the general structure is correct.</p> <p><b>1. Grammatical and fluency errors</b> Poorly worded sentences, such as "Knowledge about the sponge fauna from the Lakshadweep is scanty in recent years, but most of these modern taxonomic studies have been focused on." → The structure is incorrect and needs to be reworded to something like: "Knowledge about the sponge fauna of Lakshadweep has been scarce in recent years, although modern taxonomic studies have focused on certain aspects."</p> <p>→ The use of "Out of which" in the sentence: "Out of which one new species (<i>Scalarispongia</i> sp.) recorded first time in India and four new records..." → The correct sentence would be: "Among them, one new species (<i>Scalarispongia</i> sp.) was recorded for the first time in India, along with four new records..."</p> <p><b>2. Scientific accuracy and inconsistencies</b> → Number of species: The text mentions 43 species recorded in the Arabian Sea, but then talks about 45 species. There should be consistency in the number reported.</p> <p>→ Taxonomic classification: The title mentions "Molecular Taxonomy", but the</p>	

	<p>text does not detail gene sequences, molecular markers used (COI, 18S, ITS, etc.), or molecular analysis methods. If the molecular part involves only <i>Leucetta chagosensis</i>, this should be clearly stated.</p> <p>→ Geographic coordinates: "Lakshadweep islands located between 08°00'N and 12°30'N latitudes and 7.00'E and 74°00'E longitudes..." → The value "7.00'E" seems incorrect. Lakshadweep is closer to 71°E–74°E.</p> <p>→ Comparison with other regions: The text mentions several numbers of species recorded from different locations in India, but without providing clear context as to how these numbers were obtained (e.g.: "91 species in Lakshadweep" vs. "45 species from this study").</p> <p>3. Methodology lacking details</p> <ul style="list-style-type: none"> <li>- Collection and preservation: "The samples were placed in polythene bags and preserved in 90% ethanol for identification."</li> <li>→ Ideally, it should be indicated whether they were first fixed in absolute ethanol before preservation, to avoid degradation.</li> <li>- Taxonomic identification: "The specimens were identified following the taxonomic keys described by de Laubenfels (1936; 1948)."</li> <li>→ This is very old. Recent studies should be used in conjunction, such as Hooper &amp; Van Soest (2002) and more recent references from the World Porifera Database.</li> </ul> <p>4. Problems in literature review</p> <ul style="list-style-type: none"> <li>- Many studies are cited without adequate context. For example, Gardiner (1903–1906) is mentioned, but without explaining his importance in the study of the Lakshadweep fauna.</li> <li>- Burton (1930; 1937) and Thomas (1979; 1980; 1986) are cited, but without a direct link to current research.</li> </ul> <p>Suggested Adjustments</p> <ol style="list-style-type: none"> <li>1. Improve clarity and grammatical flow.</li> <li>2. Correct inconsistencies in species numbers and geographic coordinates.</li> <li>3. Add more details on molecular methodology, if applicable.</li> <li>4. Update taxonomy based on recent sources.</li> <li>5. Better structure the literature review, highlighting the most relevant advances.</li> </ol>	
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<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p>References in the text include historical studies and some more recent publications, but there are some gaps that can be filled to strengthen the scientific foundation.</p> <p>Points for Improvement and Suggestions for Additional References:</p> <p>-&gt; More Recently Published Studies on Sponges from the Indian Ocean and Lakshadweep.</p> <p>Suggestion: Search for more recent articles (post-2020), especially in journals such as Zootaxa, Marine Biodiversity, e Journal of the Marine Biological Association of India.</p> <p>Examples of studies that may be useful:</p> <ul style="list-style-type: none"> <li>- Van Soest, R.W.M., Boury-Esnault, N., Hooper, J.N.A., et al. (2025). "World Porifera Database." (Global sponge database, essential for taxonomic validation).</li> <li>- De Voogd, N.J., Cleary, D.F.R. (2018). "Sponges of Southeast Asia: Diversity, Distribution, and Ecological Importance." Marine Ecology Progress Series 597: 1-15.</li> <li>- Gómez, R., Maldonado, M. (2021). "Sponge Diversity and Ecological Roles in Coral Reef Ecosystems." Annual Review of Marine Science 13: 313-341.</li> </ul> <p>- &gt; References on Molecular Methods for Sponge Identification: Since the study mentions molecular aspects of <i>Leucetta chagosensis</i>, it would be interesting to include references on the use of DNA barcoding and molecular phylogeny in sponges.</p> <p>Examples of relevant articles:</p> <ul style="list-style-type: none"> <li>- Erpenbeck, D., &amp; Wörheide, G. (2016). "On the molecular phylogeny of sponges (Porifera)." Hydrobiologia, 687(1), 3-20.</li> <li>- Rot, C., Goldfarb, I., Ilan, M., Huchon, D. (2006). "Phylogeny of Porifera inferred from mitochondrial gene sequences." Molecular Phylogenetics and Evolution 40(3): 830-843.</li> </ul>	
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<p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The quality of the English in the article needs improvement to be suitable for international academic publications.</p> <p>Is the English adequate?</p> <ul style="list-style-type: none"> <li>- Not completely. The article contains grammatical errors, clarity issues and a tone that could be more academic.</li> </ul> <p>* Suggestion:</p> <ul style="list-style-type: none"> <li>→ Review the grammar and sentence structure to avoid errors in verb tenses, articles and connectors.</li> <li>→ Improve the flow to make the reading clearer and more objective.</li> <li>→ Adopt a more academic tone, eliminating redundancies and informalities.</li> </ul> <p>Original Version:</p> <p>"A total of 45 species of sponges belonging to 9 orders, 12 families and 32 genera from class Demospongiae were recorded. Out of which one new species (Scalarispongia) recorded first time in India and three new records such as Axinella minor, Haliclona cymaeformis, Callyspongia subarmigera, Luffariella sp, were recorded from Lakshadweep region List as below."</p> <p>Revised and Academic Version:</p> <p>A total of 45 sponge species, representing 9 orders, 12 families, and 32 genera within the class Demospongiae, were recorded. Among them, one new species (Scalarispongia sp.) was documented for the first time in India. Additionally, four species—Axinella minor, Haliclona cymaeformis, Callyspongia subarmigera, and Luffariella sp.—constitute new records for the Lakshadweep region. A detailed species list is provided below.</p>	
<p><b><u>Optional/General</u></b> comments</p>	<p>The study is relevant and well-researched, with important findings for the biodiversity of Lakshadweep.</p> <p>Scientific Relevance and Originality:</p> <ul style="list-style-type: none"> <li>- The study addresses a relevant and underexplored topic: the diversity of marine sponges in Lakshadweep. The inclusion of a new record for India (Scalarispongia sp.) and four new regional records demonstrates originality and significant scientific contribution.</li> </ul> <p>Well-structured Methodology:</p> <ul style="list-style-type: none"> <li>- The Materials and Methods section presents clear details on the procedures for collecting, preserving, and identifying the samples.</li> </ul>	

	<p>The mention of the use of SCUBA diving, underwater photography, and spicule extraction indicates a methodologically sound work.</p> <p>Comprehensive Bibliographic Base:</p> <ul style="list-style-type: none"> <li>- The study cites a variety of classic and recent works on sponges from the Indian Ocean and India. The inclusion of references such as Thomas (1979–1986), Gardiner (1903–1906), and George et al. (2020) demonstrates in-depth knowledge of the topic.</li> </ul> <p><b>Recommendations for improving the quality of the article:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <input type="checkbox"/> Conduct a thorough review of the English, correcting grammatical errors and improving clarity;</li> <li><input type="checkbox"/> <input type="checkbox"/> Detail the description of the molecular analysis, if applicable;</li> <li><input type="checkbox"/> <input type="checkbox"/> Include more direct comparisons with other studies on sponges from the Indian Ocean;</li> <li><input type="checkbox"/> <input type="checkbox"/> Improve the structure and organization of the text, ensuring that each section flows logically;</li> <li><input type="checkbox"/> <input type="checkbox"/> Additionally, <b>many images</b> need to be replaced with higher resolution images and should be cited throughout the manuscript.</li> </ul>	
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## **PART 2:**

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

### **Reviewer Details:**

Name:	<b>George Joaquim Garcia Santos</b>
Department, University & Country	<b>Universidade Federal do Cariri, Brazil</b>