



**SDI FINAL EVALUATION FORM 1.1**

**PART 1:**

Journal Name:	<a href="#">Asian Journal of Fisheries and Aquatic Research</a>
Manuscript Number:	Ms_AJFAR_47084
Title of the Manuscript:	<b>Ecological Approach of Plankton Responses to Water Quality Variables of Tropical River, South-eastern Nigeria: A Bio-indicator-Based Community Assessment of Idundu River.</b>
Type of Article:	<b>Original Research Article</b>

**PART 2:**

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
<ul style="list-style-type: none"> <li>• Much of the grammar mistakes were corrected, but several of these still prevail. And a great part of the comments to the original MS were not included. Some comments are described in the following lines, and the rest are shown in the revised MS.</li> <li>• In the introduction section, there is an extensive treatment of zooplankton, unbalanced as compared with the phytoplankton treatment. Some sentences related with zooplankton seemed to be a mosaic of short asseverations.</li> <li>• The 55 µm of mesh seems to be too broad to retain small phytoplankton organisms.</li> <li>• After ANOVA application, it was used any post hoc analysis to identify which station was significantly different?</li> <li>• In section 3.1, the first paragraph is redundant with Table 1. Also, author is averaging each monthly value from the 3 sampling stations, which is incorrect. If there is any significant difference for any variable between the stations, author will lose this information for the discussion. Each sampling station should be treated individually. In other words, figures like the figure 2 for each sampling station are recommended. This will show quickly and in an easy way the variations at each sampling stations and the differences between them.</li> <li>• In section 3.2, information about the identified plankton (phyto and zoo) species is missing.</li> <li>• Phytoplankton and zooplankton abundances are not referred to any volume.</li> <li>• Unit for zooplankton abundance is not cells/L, because zooplankton organisms are multicellular. Correct unit is individuals/L.</li> <li>• Values of plankton abundance for each sampling station should be shown in figures, in order to see variations along the time.</li> <li>• In section 3.3, author should note that diversity indices and equitability (or evenness) index for phytoplankton decreased from station 1 to station 3, from the less polluted to the most polluted one. This is the noted trend.</li> <li>• What is the significant different station when diversity indices are considered? If any significant difference is noted, a post hoc analysis could be used (i.e., Tukey, LSD, etc.).</li> <li>• If the objective of this study is to search for ecological responses of plankton to the water quality variables, why the values of each variable were not included? The PCA is a good tool for the examination of these relationships.</li> <li>• The first part of the Discussion section repeats the results. The same as for the first zooplankton paragraphs.</li> <li>• If author is comparing different ecosystems, it is necessary to describe if they are similar or not. Comparisons were made considering reservoirs from different latitudes and countries (Broa reservoir from Brazil), and this could be</li> </ul>	



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<p>decontextualized.</p> <ul style="list-style-type: none"> <li>• Author explained that the low abundance of zooplankton could be due to the fact that most zooplankton migrates upward from deeper strata as darkness approaches and return to the deeper areas at dawn. However, this could be right for lentic waters, but this study was made in a river, in which the unidirectional flow is dominant. So this explanation seems to be inadequate in the discussion.</li> <li>• Author asseverates that phosphate and nitrate reduced the dissolved oxygen values. This is incorrect: Phosphate under reduced conditions (without oxygen) is soluble in water, producing an increase of it concentration, while inorganic nitrogen is oxidized under oxygenated environments, also increasing it concentration.</li> <li>• What is a “healthy environment for planktonic productivity”? Planktonic productivity always occurs, but its rate will differ according to the environment conditions and plankton biomass and abundance.</li> <li>• Author states that “<i>Rotifera had a strong positive relationship with nitrate, and this indicates that increase in nitrate will lead to a corresponding increase in Rotifera</i>”. This mean that Rotifera uptakes nitrate directly? If so, please cite the bibliographic reference.</li> <li>• Author states that “<i>Principal component analysis (PCA) of the planktonic community study in Idundu River shows differences in the most important families between phytoplankton and zooplankton. Zygnemophyceae, Dinophyceae, Chlorophyceae and Cryptophyceae recorded high positive loading in the first and second component, this is because the ecological success of this species which could be as a result of large scale tolerance to different environmental, ecological and climatic conditions such as temperature and relative humidity</i>”. If physical and chemical variables were not included in the PCA, how author reach to this conclusion?</li> </ul>	
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