



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">Asian Journal of Biology</a>                                                                                                                       |
| Manuscript Number:       | Ms_AJOB_36001                                                                                                                                                  |
| Title of the Manuscript: | <b>Toxicological Effects of different Concentrations of Hypo Bleach on the Survival of African Clariid Mud Catfish (<i>Clarias gariepinus</i>) Fingerlings</b> |
| Type of the Article      | <b>Review Paper</b>                                                                                                                                            |

**General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**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)                                                                     |
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| <b>Compulsory</b> REVISION comments | <p>The paper "<i>Toxicological Effects of different Concentrations of Hypo Bleach on the Survival of African Clariid Mud Catfish (Clarias gariepinus) Fingerlings</i>" was aimed at studying the toxicological effects of hypo bleach on the survival of <i>Clarias gariepinus</i> fingerlings.</p> <p><i>General comments</i></p> <p>The paper is classified as a <b>Review Paper</b>. However, it is not a review but an article reporting original data.</p> <p>A large amount of toxicity studies on sodium hypochlorite on fish have been carried out in the last 30 years and most of them are listed in the: <i>PAN Pesticides Database - Chemical Toxicity Studies on Aquatic Organisms</i> available at <a href="http://www.pesticideinfo.org/List_AquireAll.jsp?Rec_Id=PC34390&amp;Taxa_Group=Fish&amp;offset=50">http://www.pesticideinfo.org/List_AquireAll.jsp?Rec_Id=PC34390&amp;Taxa_Group=Fish&amp;offset=50</a>.</p> <p>Many of these studies considered mortality and provided LC50 values for several fish species; other studies were conducted considering more specific effects on: avoidance, growth, histology, behavior, genetics, biochemistry and others.</p> <p>The main criticism on this paper is that the authors should have better considered that they were studying such a well-known toxicant. Therefore, they should have mentioned the most relevant of the previous studies and compared their own findings with those of similar investigations carried out in different fish species. Conversely, they mentioned only one paper on bleach (Ref. n. 18) and compared their results with those of studies conducted on the same fish species (<i>Clarias gariepinus</i>) using different toxicants.</p> <p><i>Specific comments:</i></p> | <p>The link was assessed</p> <p>Other related study of Acute toxicity of bleach on fishes have now been incorporated into the work and have been compared with that of the present study in the discussion section, check revised manuscript.</p> |



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|  | <p><i>Indroduction:</i></p> <p><i>Line 47:</i> smile: is it slime?</p> <p><i>Line 52:</i> here the authors should refer to the knowledge on the toxic effects of sodium hypochlorite and better define the aim of the study (eg. Why <i>Clarias gariepinus</i> was chosen for this study? Why an acute bioassay considering only mortality as parameter? Was the concentration range tested selected on the basis of the toxicant concentration possibly present in contaminated surface waters in Nigeria?</p> <p>MATERIALS and METHODS:</p> <p>The authors should state if the experimental handling and treatments of animals were carried out according to their own national regulations and were authorized by the Institutional Animal Care and Use Committee, in compliance with national regulations</p> <p><i>Line 66:</i> 6.5 g</p> <p><i>Line 69:</i> delete <i>for two weeks</i> (repetition)</p> <p><i>Line 71:</i> describe the dimension of the tanks and if the chemico-physical parameters of the water were monitored.</p> <p><i>Line 81:</i> 10 ml; 990 ml</p> | <p>It is slime, corrected, check revised manuscript.</p> <p>Toxic effect of sodium hypochlorite added, check revised manuscript.</p> <p><i>Clarias gariepinus</i> was chosen because it is the most common fingerlings in my country and have been used by several scholars for toxicity testing.</p> <p>The concentration range were chosen after a range finding test which revealed the concentration of the toxicant that can kill the fingerlings, so as to derive the LC50 and then link its effect to the biological organisms in our waters.</p> <p><b>Currently, there is no available ethical approving board for the use of fish in research in my country. However, we ensured that standard methods for handling and sample collection was employed in this study.</b></p> <p>This was the highest weight of fingerlings used.</p> <p>Deleted, check revised manuscript.</p> |
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|  | <p><i>Line 81:</i> please specify the weigh/volume concentration of the hypo bleach commercial solution</p> <p><i>Line 82:</i> 1000 ml;</p> <p><i>Line 83:</i> 190 mg/l;</p> <p><i>Line 86:</i> describe the dimension of the aquaria and if the chemico-physical parameters of the water were monitored.</p> <p><i>Line 90:</i> describe how the behavior of fish was monitored (according to the results presented at lines 120-121)</p> <p>RESULTS</p> <p><i>Line 103:</i> 96 hours</p> <p><i>Line 104:</i> delete the sentence: <i>The fingerlings were of the 104 same age group, ranging from 9.2 to 10.4cm in length and 5.5 to 6.5g in weight</i> (already stated in M&amp;M)</p> <p>Table 1 and related text: the survival columns and data seems to be redundant and could be omitted. The mortality data at 24 -48 -72 hours should also be presented, considering that time dependent effects are claimed in the discussion and conclusion sections.</p> <p>DISCUSSION</p> | <p>The tank dimension and some vital physic-chemical parameters like; pH and temperature were measured and have been included, check revised manuscript.</p> <p>10ml is the volume of the bleach which was added to 990 ml of water, which gave a 1000 ml stock solution, and all measurements done using a measuring cylinder.</p> <p>The weight per volume have now been included, check revised manuscript.</p> <p>This is the volume of the prepared stock solution prepared.</p> <p>It is 1.90 mg/l rather and not 190 mg/l, which was the highest concentration of the hypo bleach the fingerlings were exposed to.</p> <p>The tank dimension and some vital physico-chemical parameters like; pH and temperature were measured and have been included, check revised manuscript.</p> <p>It has been added, check revised manuscript.</p> <p>The fingerlings were monitored for 96 hours and the total mortality recorded after 96 hours.</p> <p>Deleted, check revised manuscript.</p> |
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|  | <p>In general, the discussion section is not properly written, differently from the previous sections. Several sentences are not clear and the English language is not appropriate and should be thoroughly revised.</p> <p><i>Line 165:</i> the term “irreversible” is not appropriate</p> <p><i>Line 166-167:</i> the meaning of the sentence is not clear</p> <p><i>Line 174-178:</i> please, specify if the alterations were observed in surviving animals and if they were reversible.</p> <p>In general, the alterations should be better described in the results if you want to discuss them in such detail and with such emphasis.</p> <p><i>Line 183-196:</i> the LC50 data should be discussed considering other studies on sodium hypochlorite (see general comments).</p> <p><i>Line 188:</i> <i>Acanthalburnus microlepis</i></p> <p><i>Line 208:</i> the statement that toxicity was <i>duration dependent</i> is not supported by the data presented. As suggested in the comment on Table 1, the mortality data at 24 -48 -72 hours should be presented to support the statement.</p> | <p>The mortality data at 24 -48 -72-96 hours have now been included, check revised manuscript.</p> <p>It has been revised.</p> <p>It has been corrected, check revised manuscript.</p> <p>Sentence have been recasted, check revised manuscript.</p> <p>The alterations were observed in the swimming animals.</p> <p>The alterations have now been added, check revised manuscript.</p> <p>Other studies on sodium hypochlorite have been compared with the present study, check revised manuscript.</p> <p>Corrected, check revised manuscript.</p> <p>A mortality data at 24, 48, 72 and 96 hour supporting the comment have now been added, check revised manuscript.</p> |
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| <b>Minor</b> REVISION comments   |                                                                                                                                                                                                                                                                                                   |                                                     |
| <b>Optional/General</b> comments | <p><b>Ethical issues:</b></p> <p>The authors should state if the experimental handling and treatments of animals were carried out according to their own national regulations and were authorized by the Institutional Animal Care and Use Committee, in compliance with national regulations</p> | <p>It has been added, check revised manuscript.</p> |