

Review of: "Cadmium Toxicity-Induced Changes in Antioxidative Enzyme Levels in Freshwater Catfish *Channa Punctatus* (Bloch)"

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Potential competing interests: No potential competing interests to declare.

The article entitled "Cadmium Toxicity-Induced Changes in Antioxidative Enzyme Levels in Freshwater Catfish *Channa Punctatus* (Bloch)" deals with cadmium toxicity and its effects on aquatic living biosystems. After critical review and the modifications suggested, the article should not be further considered for publication.

Authors can modify the title.

Several grammatical errors are observed throughout the manuscript; kindly rectify.

Abstract:

The abstract is to be modified. Incorporate the pattern starting with research question, background, and outcome followed by research approach.

Keywords: Italicize the word *Channa punctatus*

Introduction:

There is no connectivity in the introduction. Authors are talking about antioxidants, cadmium toxicity, but nowhere can the role of antioxidants be seen in the introduction. Kindly modify the section. The introduction is not even concluded with what the rationale of the experiments performed is, looking over the problem.

Authors may refer to articles published from 2019 till 2023.

Materials and Methods:

What was the rationale behind selecting *Channa punctatus* as the experimental model for this study?

Why have the authors used all the old antioxidant protocols when many recently published studies have modified protocols?

The effect of toxic metals on the study model used clearly determines the oxidative upregulation, so why have the authors not performed the histopathological analysis of the liver? If data or figures are available, kindly incorporate.

The study explains the Cd-induced toxicity, but there are no evidences of the uptake of this Cd in fishes or its link with the

study.

Why is LC50 not calculated as the study is dose dependent?

Was the water used throughout the study checked for physicochemical analysis as well as the Cd concentration in it?

Results:

Effect of Cadmium on Oxidative Stress Biomarkers (Enzymatic and Nonenzymatic Antioxidants)

Authors have written this section very poorly. They are not even bothered about mentioning the outcomes. Just giving tables doesn't imply the results.

Discussion:

No connectivity, several grammatical errors.

Authors need to understand that the discussion deals with the comparison of obtained results with the studies reported. Nowhere is the comparison with 2020 or 2023 reported studies. What is the rationale of explaining how the 1994 reported study can be relevant?

Conclusion:

Rewrite the conclusion.