

# 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.

#### **Abstract**

#Page 1

"present study has been" change to The present study has been

"were analysed" change to "were analyzed"

"as far as consumption of fishes" change to "as far as the consumption of fish"

#### Introduction

#Page1

"great importance from the toxicological" change to "great importance from toxicological"

#Page2

"may become changed" change to "may change"

"behavioural, and physiological functions" change to "behavioral, and physiological functions"

"A number of antioxidants exist to" change to "Several antioxidants exist to"

• Please explain the aim of your research at the end of the introduction

#### Materials and methods

#Page3

"The fresh water fish Channa punctatus" change to "The freshwater fish Channa punctatus"

"one month prior to the experiments" change to "one month before the experiments"

· Please mention the models of devices that were used



# Results #Page 5 Lipid Peroxidation (LPO): "and in the high concentration" change to "and the high concentration" Reduced glutathione: "as compared to control after" change to "as compared to the control after" "the level was found decreased insignificantly" change to "the level was found to decrease insignificantly" "and in the high dose group" change to "and the high dose group" #Page 6 Superoxide dismutase "and in the higher concentration" change to "and the higher concentration" "and in the high-dose group" change to "and the high-dose group" CAT: "and in the higher concentration change to "and the higher concentration" "the level of CAT was found to be increased significantly" change to "the level of CAT was found to increase significantly" "and in the higher-dose group respectively" change to" in the low-dose group (P<0.01) and the higher-dose group respectively" #Page7 Protein: " and in the high-dose group" change to "and the high-dose group" #Page7 "cadmium showed a number of degenerative changes" change to "cadmium showed several degenerative changes" #page 8 "hepatocytes with pyknotic nuclei were observed" change to "hepatocytes with pyknotic nuclei observed"

"Vacuolisation" change to "vacuolization"



"disorganisation of hepatic" change to "disorganization of the hepatic"

"intravascular haemolysis" change to "intravascular hemolysis"

#### **Discussion**

#### #Page 9

"in a coordinated manner in order to ensure the optimal protection" change to "in a coordinated manner to ensure optimal protection"

"through peroxidation of polyunsaturated" change to "through the peroxidation of polyunsaturated"

"the direct reaction of oxygen and lipid" change to "the direct reaction of oxygen and lipids"

"has been considered as a reliable" change to "has been considered a reliable"

"which induce oxidative damage" change to "which induces oxidative damage"

#### #Page10

"cell signalling system" change to "cell signaling system"

"cell signalling system" change to "cell signaling system"

"peptidal antioxidant" change to "peptide antioxidant"

#### #page 11

"which causes the damage of cellular components" change to "which causes damage to cellular components"

"treatment of fishes" change to "treatment of fish"

"defence mechanisms" change to "defense mechanisms"

"oxidative stress mediated toxic" change to "oxidative stress-mediated toxic"

"a dose-dependent inhibition" change to "dose-dependent inhibition"

#### #Page 12

"kidney decreased due to overproduction of free radicals" change to "kidney decreased due to the overproduction of free radicals"

"in CAT activities in kidney and gill" change to "in CAT activities in the kidney and gill"

"reported the decrease in CAT activity of the brain and kidney of" change to "reported a decrease in CAT activity in the brain and kidneys "



"treatment with the pesticides 2, 4-D and" change to "treatment with pesticides 2, 4-D and"

"in the brain of C. carpio (Oruc et al., 2004) and in the liver of O. niloticus" change to "in the brain of C. carpio (Oruc et al., 2004) and the liver of O. niloticus"

"important role in cellular detoxification" change to "important role in the cellular detoxification"

"electrophilic centres on a wide" change to "electrophilic centers on a wide"

### #Page13

"protein levels have been found to be decreased" change to "protein levels were decreased"

"due to inhibition of" change to "due to the inhibition of"

"and synthesis of" change to "and the synthesis of"

"may be depletion of protein" change to "may be the depletion of protein"

"ong-term copper sulphate" change to "ong-term copper sulfate"