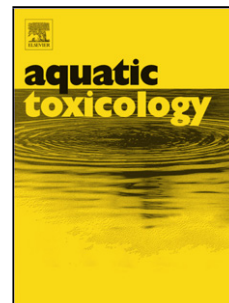


Accepted Manuscript

Title: Evaluation of DNA damage and physiological responses in Nile tilapia, *Oreochromis niloticus* (Linnaeus, 1758) exposed to sub-lethal diclofenac (DCF)

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PII: S0166-445X(17)30077-2
DOI: <http://dx.doi.org/doi:10.1016/j.aquatox.2017.03.007>
Reference: AQTOX 4616

To appear in: *Aquatic Toxicology*

Received date: 23-11-2016
Revised date: 3-3-2017
Accepted date: 4-3-2017

Please cite this article as: Pandey, P.K., Ajima, M.N.O., Kumar, K., Poojary, N., Kumar, S., Evaluation of DNA damage and physiological responses in Nile tilapia, *Oreochromis niloticus* (Linnaeus, 1758) exposed to sub-lethal diclofenac (DCF), *Aquatic Toxicology* (2017), <http://dx.doi.org/10.1016/j.aquatox.2017.03.007>

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Highlights:

- Toxicity of diclofenac affected *Oreochromis niloticus* in a concentration and time dependent manner
- DNA damage was assessed by comet assay in the fish
- Liver is susceptible to the toxic effects of the drug.
- Exposure to sub lethal concentrations of diclofenac affected antioxidant system as well as haematology of the fish
- Diclofenac caused DNA damage in the fish liver
- Oxidative stress biomarkers can be used as early warning signals in environmental monitoring of residual diclofenac and assessment

Evaluation of DNA damage and physiological responses in Nile tilapia, *Oreochromis niloticus* (Linnaeus, 1758) exposed to sub-lethal diclofenac (DCF)

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Running title: Exposure of fish to diclofenac

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