



Research article

Effects of fly ash and *P. hysterophorus* on the antioxidant status of earthworm (*Eisenia fetida*)

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Key words: Fly ash, *Parthenium hysterophorus*, *Eisenia fetida* and Antioxidant enzymes.

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Abstract

Fly ash is a serious source of air pollution since it remains air borne for a long period of time and causes health hazards. *Parthenium hysterophorus* is one among the most troublesome weeds at the global level. The aim of the present study was to evaluate the effect of fly ash and parthenium weed on antioxidant status of earthworm, *Eisenia fetida*. Earthworms were allowed to grow in the mixture of cow dung: fly ash (60:40) and cow dung: parthenium (75:25) for 60 days. The biochemical markers viz. catalase (CAT), superoxide dismutase (SOD), glutathione peroxidase (GPx) and malondialdehyde (MDA) level were measured at day 15, 30, 45 and 60. The results revealed increased MDA level, while SOD, GPx and CAT activities showed variation in both the treatments. The study indicated that fly ash and *Parthenium hysterophorus* has adverse biological effects on the model organism *Eisenia fetida*.
