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Landfill leachate effects on *Eisenia andrei* Bouché, 1972

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In Brazil the uncontrolled production of domestic and industrial wastes, inefficient recycling and the accumulation in landfills, has exponentially increased the production of leachate. This leachate, if not treated, percolates into the soil, carrying toxic substances, such as heavy metals. The present study aimed to examine the ecotoxicological effects of landfill leachate on *Eisenia andrei* (Lumbricidae, Oligochaeta), since earthworms have been considered good indicators of soil quality and health. We tested the hypothesis that larger leachate concentration in the soil would have greater impacts on earthworms. For this purpose, the avoidance test was performed, using landfill leachate from the Landfill of Morretes, Paraná, Southern Brazil. Six concentrations of landfill leachate were tested: 0%, 20%, 40%, 60%, 80% and 100% of leachate, in substitution of H₂O used to moisten the substrate (tropical artificial soil) to 60%. ISO (2007) guidelines for avoidance test were followed. The results showed that the avoidance behavior was statistically significant at all concentrations \geq 40% leachate, confirming our initial hypothesis. The EC₅₀ was 57.87%, NOEC was 20%, and LOEC was 40%.