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ENVIRONMENTAL QUALITY IN FORESTS FROM BUCHAREST METROPOLITAN AREA, ROMANIA

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Abstract

The assessment of heavy metals pollution using *Xanthoria parietina* (L.) Th. Fr. as an indicator species was performed for forests from Bucharest metropolitan area. This study aims to provide original data concerning environmental quality in relation to the intensity of car traffic. Metal concentrations in *Xanthoria parietina* measured in sites adjacent to roads were compared with those measured at a distance from traffic. The results show significant correlations between the Cd and Cr concentrations and the distance from Bucharest. The Pb, Cr, Cd and Zn concentrations are insignificantly correlated with the number of vehicles. Within the studied area, decreasing heavy metal concentration in *Xanthoria parietina* on sampled trees is clearly associated with increasing distance from the nearest roads. It was found that Pb and Zn concentrations are higher especially in the Pustnicul and Bolintin-Deal forests indicating that values of Pb and Zn concentrations in *Xanthoria parietina* could be used as indicators of environmental pollution for Pustnicul and Bolintin Deal forests.

Key words: atmospheric pollution, car traffic, forest, heavy metal, *Xanthoria parietina*

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