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VARIATIONS OF PHOSPHORUS, SULPHUR AND NITROGEN CONTENT IN LICHENS IN THE FORMER MANUFACTURING AREAS

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Abstract. The aim of this research work was to evaluate the pollution level of phosphorus, sulphur and nitrogen in the former manufacturing areas (former drainage pipe factory and landfill site) and compare it with the forest area levels using lichens as bioindicators. Additionally, the correlation between the content of these elements in lichens and soil was examined. For this study, three sampling sites in Latvia were chosen: the former Kuprava drainage pipe factory, the former landfill site and Sita forest the distance between them of 10-25 km. The research results show that in the former drainage pipe factory area and landfill site, the levels of phosphorus, sulphur and nitrogen content were elevated in comparison with Sita forest. In the case of phosphorus and nitrogen contents, a positive correlation was observed between soil and lichen samples.

Keywords: phosphorus, nitrogen, sulphur, lichen, soil.

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