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Research Note
Effect of drought and fires on the quality of water in Lithuanian rivers

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Abstract. In August and September 2002, concentrations of heavy metals (copper, lead, and zinc) were 21-74% more than in previous years in Lithuanian rivers. Such a sudden increase in heavy metal pollution reduces the value of any water body for fishing or recreation and poses a potential risk to the environment and to human health. Droughts in the summer of 2002 led to forest and peat bog fires all over Lithuania and may have caused the increase in concentrations of heavy metals detected in Lithuanian rivers in August 2002. The fires could have changed the pH in the top layers of the soil, overcome geochemical barriers in the soil and enabled heavy metals to migrate from the soil to the groundwater and from river bottom sediments to the surface water.

Keywords: heavy metals, river water quality, Lithuania

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