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Surface ozone variability and land use change after extreme wind event

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Extreme wind event in November 2004 caused widespread destruction of slope forests in the Tatra National Park, Slovakia. Relevant changes of land cover motivated researchers to investigate the damaged forest ecosystem and its response to different environmental conditions (Fleischer, 2011). Surface ozone (O₃) is a minor but not negligible compound of the ambient air. Control strategies for reduction of O₃ precursor emissions have been applied in Europe during the last two decades. In spite of these reductions air quality indices suggest that highland sites are more vulnerable to health and environmental risk than lowlands where the most of emissions from road transport and industry are produced (Bičárová et al., 2013). Both anthropogenic emissions from long-range transport and biogenic precursors (BVOC) from forest vegetation play relevant role in the tropospheric photochemistry, especially in mountainous and rural locations. The purpose of this work is to describe the variability of O₃ before and after the windstorm of 2004 with different amount of local BVOC precursors from forest vegetation.

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The avalanche denudation in Gorgany Mountain massive (Ukrainian Carpathians)

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In research of mountain areas relief is mainly characterized as an unchanging component of landscape. However, it is also a dynamic part of natural territorial complexes, that are characterized by relatively slow dynamics changes. Relief formation and dynamics are influenced by many