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STUDY REGARDING THE VEGETATION DINAMICS IN THE FORMER BAUXITE QUARRY FROM PADUREA CRAIULUI MOUNTAIN

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Abstract. *The paper is based on the reserches carried out during 2009-2011 in a former bauxite quarry from Padurea Craiului Mountain, North-Western Romania. The bauxite esploitation ended in 1998 and in 2004 and in 2005 the complex reconstruction works were made and the spruce trees were planted.[1] Five variant for herbs vegetation reconstruction on the hillside were studied: hillside with slope of 10%, 20%, 31% and 44% with mattresses and with slope of 44%, without mattresses.Tussilago farfara and Calamiagrostis epigios were determined only in the varinats with slope of 10%, 20% and 31% and mattresses in the first year of the researchers after 8 years of the exploitation end. In the 10th year after the bauxite exploitation end on the hillside with slope of 44% and mattresses two species appeared: Tussilago farfara and Calamagrotis epigeios. On the hillside without maltresses and slope of 44% the Tussilago farfara was determined only.*

Keywords: slope, erosion, vegetation, former bauxite, quarry, mattresses.

1.Introduction

Pădurea Craiului Mountains have an important bauxite reserve and there were a lot of quarries in the 2nd parte of the XX century. The aluminium low content of the bauxite and others reasons determined to close a most part of quarriess.
Vegetation and soil reconstruction in the former bauxite quarries is based on the complex system of works. One of the most important probllem for quarries hillsides is the erosion. Erosion is a natural process produced under the rainfall (or wind) influence and consists of soil, land or rock detaching, their transport and sedimentation in other places. [2]
The slope is very important in the erosion process from former bauxite hillside quarries; in comparasion with the slope of 20%; the land losses from the hillside with slope of 31% increased with 65,3%; on the hillside with slope of 44%, the land losses increased with 196, 2 %. The matresses build on the hillside with slope of 10% determined the land losses of 3,9 t/ha during 2005-2008 in comparasion with 100, 6 t/ha in the variant without mattresses. [3]

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