



Estimation of carbon dioxide emission from the peat deposit surface in territory of forest drainage on Vasyugan Bog

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Peat bogs play a significant role in the biosphere, saving balance between components correlation of atmospheric air. The amount of wetlands of Siberian region - 27% (99.1 million hectares of total territory of Russia) provides for responsibility for conservation of ecological balance of a huge marsh system under human's influence. In the judgment of many scientists, 3/4 of climate warming is stipulated by a total impact of CO₂ and methane. Regulation control between transformation and CO₂ emission and accumulation of organic matter the drained peat bogs is an actual problem in the ecology. In the first place, CO₂ emission is connected with the microorganisms activity. Meanwhile composition of a microbial community is defined with the help of an organic matter type. During the study we identified that low emission of carbon dioxide is observed from the surface of peat bogs, these results certify significant accumulation of carbon in peat, delayed decomposition of the annual tree waste and production of the ground cover. Forest reclamation, decreasing the level of bog waters and increasing the aeration zone, creates conditions for CO₂ emission increase in drained complexes. In 2007 the studies of carbon dioxide emission showed that average emission is two times more than parameters on the melioration lot in comparison with a natural observation point. The admission ranges were 7.33-236.5 mlg/m² * hour on the natural point and - 66.3 -451.2 mlg/m² hour on the forest drainage point.