

**Title: ANALYSIS OF METABOLIC OF BACTERIAL COMMUNITIES IN STRUCTURE BIOMES FIVE SOIL BIODIVERSITY CENTER (MG).**

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**Abstract:**

Soil is one of the terrestrial biomes that exhibit a wide range of micro-organisms interacting with each other and are responsible for maintaining the ecological relations and nutrient cycling. Microplates EcoPlates -Biolog is a useful tool for characterizing microbial communities, providing physiological profiles at the community level to terrestrial and aquatic ecologists. Recently, much has been studied to understand bacterial metabolic diversity of soil, considering that this biome is one of the shelters with the highest concentration of cultivable and uncultivable microorganisms, this interaction of bacterial communities, it is a crucial factor in the regulation and functioning of ecosystems. The degrading human activities are factors that help to balance the environmental interactions of bacterial communities. Analyses by microplate elucidate the different microbial interactions the metabolic rate and metabolic diversity of different biomes. This study evaluated five different (yoke grass savanna, eucalyptus and forest) biomes of a mining company's conservation area. According to the results, the soil biomes showed varied metabolic diversity for the five biomes with a high evenness of microbial communities, and biomes like forests and eucalyptus stood out compared to the other biomes this is due to the amount of litter and microbial metabolic activity however for other biomes values were reduced due to low amount of plant cover thus the mining activities of the area and the high concentrations of metals did not affect bacterial relationships as well as your metabolism. The Ecoplate analysis showed a good distribution of biomass corroborating the results obtained from sequencing analysis. Bacterial strains. Giving emphasis on the grass soil since they exhibit greater degradation of carbon sources.

**Keywords:** Ecoplate. metabolism, metabolic diversity and bioremediation.

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