Microorganisms at the Service of The Remediation of Mining Sites in Côte d'Ivoire: Kokumbo Gold Panning Site

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ABSTRACT

Gold panning plays a very important economic role and supports several million people throughout the world in general and in West Africa in particular. However, when poorly controlled, this activity has disastrous consequences through the use of toxic chemicals (Mercury, Cyanide, Sulfuric acid, Zinc, etc.) to extract gold, through the remobilization of toxic metals associated with the gold, by the obstruction of waterways, deforestation, pollution of water, the atmosphere and soil. Many microorganisms, naturally present in these multi -polluted environments, can be useful at different stages of the cycle of a gold panning site. They make it easier to extract gold, with less ecological impact on the environment by limiting the use of toxic products. They can provide valuable assistance in the remediation of polluted sites. This work aims to study the microorganisms of the gold panning site of Kokumbo (Central Ivory Coast). The taxonomic identification of these microorganisms and the study of their genetic diversity will make it possible to study biodiversity and better understand their potential roles on the site. This knowledge will make it possible to improve the management of artisanal gold mining, to provide solutions for the bioremediation of polluted water and soil.

Keywords: Bioremediation, Gold panning, Microorganisms, Genetic diversity

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