

## ENDOPHYTES-ASSISTED PHYTOREMEDIATION

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### **Abstract**

Interactions between microorganisms and plants play an important role in surviving stress conditions, including the presence of contaminants. In contaminated sites, plants are able to uptake contaminants, but the ability to metabolize them is limited. On the other hand, microorganisms associated with plants can form very plastic metabolic networks which can amend the plant metabolism. In the long term, rhizosphere microorganisms have been studied, but currently the endophytes are also of interest. Endophytes are microorganisms living inside plant tissues, which were often overlooked because of methodological issues associated with their studying. In the frame of this study, attention will be paid to: (i) examples of bioremediation with important role of endophytes; (ii) methodological approach to study these organisms; and (iii) a project will be introduced, which focuses on the molecular analysis of bacteria associated with natural vegetation of soil contaminated by polychlorinated biphenyls.

### **Key words:**

bioremediation potential, endophytic microorganisms, 16S rRNA genes, metagenomics