

DIVERSITY OF *ACTINOBACTERIA* IN THE RHIZOSPHERE OF THE TYPICAL MANGROVE TREE RHIZOPHORA MANGLE

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Mangrove ecosystems are open coastal environments located at the interface between the continents and the oceans. Such environments have been subject to substantial degradation due to contamination by anthropogenic activities. Concerning the biodiversity in such environments, the most common plant species found in mangroves is the red-mangrove (*Rhizophora mangle*). Here it is presented a survey in the diversity of Actinobacteria, a group of filamentous bacteria that can easily adapt to different environmental conditions, in the rhizosphere of these plants. Two mangroves were samples, both located in the coastline of the So Paulo State (Brazil): i) oil-contaminated mangrove at Bertioga, ii) non-distur bed mangrove at Ilha do Cardoso. The culture-dependent analysis of *Actinobacteria* from the rhizosphere samples resulted in a low number of isolates (14 in total), which revealed by morphological analysis and 16S rRNA sequences, to be affiliated to the genus *Streptomyces*. A better overview of the Actinobacterial community in the rhizosphere of *R. mangle* was achieved by the culture-independent analysis PCR followed by denaturant gradient gel electrophoresis (PCR-DGGE). Differences in the band patterns indicate that different *Actinobacteria* colonize the rhizosphere of *R. mangle* in distinct mangroves. Moreover, the correlation of environmental variables (location within the mangrove and the oil contamination) with the PCR-DGGE fingerprinting, by redundancy analysis (RDA) has determined the oil contamination and the proximity to the sea, as the main factors influencing the diversity of *Actinobacteria* in the rhizosphere of *R. mangle*.

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