Molecular Identification of Bacteria Isolated from Medicinal Plant 
Baccharis dracunculifolia DC Asteraceae

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Plant species are promising sources of associative microorganisms and bioactive compounds of biotechnological interest, such as food, agricultural, pharmaceutical, cosmetics, biofuels, bioremediation, scientific researches and among others. Therefore, bacteria associative of medicinal plant Baccharis dracunculifolia (Asteraceae), known as alecrim-do-campo, was studied in this work, aiming identifying by molecular tools bacteria isolated from rhizosphere and aerial parts of this plant. For this, samples of B. dracunculifolia were used to perform the bacterial isolation from leaves, roots and soil. Isolates were grouped according to morphology shown on the PDA and TSA media, from which 18 isolates were selected for DNA extraction and amplification by PCR of 16S rDNA, using FD1 and RD1 primers. The amplicons obtained were analyzed by gel agarose electrophoresis and then, were purified with High Pure PCR Product Purification Kit (Invitrogen). Sequencing of V3 region was performed using 362F primer on an automatic sequencer ABI PRISM Genetic Analyser® 3100. The identification of isolates was based on nucleotide homology searches against sequences deposited on Genbank database (NCBI), using the blastN tool. According with the morphology, the isolates were grouped in four morphotypes (white, yellow, transparent, pigmented) and by 16S analysis; isolates were identified with high identity (98-100%) as belonging to species of six different genera: Bacillus (6), Streptomyces (4), Actinobacterium (3), Pantoea (3), Acinetobacter (1) and Staphylococcus (1). The results of this research have shown that community of bacteria associated to plant tissues and rhizosphere of alecrim-do-campo is diverse, suggesting that these habitats represent interesting sources of microorganisms for studies aiming the bioprospecting for bioactive compounds and biological activities of biotechnological interest. Acknowledgment: To EMBRAPA and Londrina State University by material and infrastructure support and to CAPES, CNPq and Araucaria Foundation by financial support.

Key-words: Medicinal Plant; Associative Bacteria; Bioprospecting.