Actinobacterial diversity associated with rooibos plants

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Rooibos tea, Aspalathus linearis, was discovered by the indigenous people of the Western Cape over 300 years ago. Rooibos is of great commercial value and is currently being sold worldwide as a herbal tea. There is a wide range of health benefits associated with rooibos consumption. As rooibos tea is often found to be contaminated by pathogenic Salmonella species researchers are looking for natural biocontrol agents. Actinobacteria are abundant in soils and have been found in close association with the roots of several crops. Actinobacteria produce an array of bioactive compounds including secondary metabolites which can be used as either growth promoters or biocontrol agents. The aim of this study is to investigate the diversity of actinobacteria colonising rooibos leaves (endophytes) and the associated soils, employing traditional microbiological methods and metagenomics to identify "rooibos" specific taxa.