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Title (English)
The foliar bacterial endophyte community in native *Pinus radiata*: a role for protection against fungal disease?

Title (Swedish)

Abstract
*Pinus radiata* is the most planted tree in the southern hemisphere. The planted trees are especially susceptible to pathogens, but even the native population, nowadays limited to merely five locations, are threatened by diseases caused by arthropods, fungi and dehydration. Endophytes are bacteria or fungi that reside inside healthy plant tissue, and often have a beneficial effect on their hosts. Endophytes can help plants adapt to abiotic stress such as drought and protect them against pathogens and insect pests. Given the roles that endophytes play in host stress responses, it is possible that without studying endophytes we may not fully understand a plant’s response to increased temperatures and climate-induced disease.

Using Illumina-sequencing of the 16S rRNA-gene the bacterial endophyte community in 15 trees from three of the remaining native populations were studied. By investigating trees from several sites geographical community differences were discovered. The three overall most dominating bacterial taxa can all be connected with genera known to contain members with anti-fungal properties.

Keywords
Bacterial endophytes, 16S rRNA, conifers, *Pinus radiata*, Monterey pine

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