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Fakultät für Naturwissenschaften
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Posters - Riassunti



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SOIL FUNGAL DIVERSITY IN SIX SPRUCE FORESTS: A METAGENOMIC APPROACH

A broad range fungal metagenomics study, using Roche 454 pyrosequencing platform, was undertaken targeting ITS fungal amplicons from the A horizon of six spruce (*Picea abies*) forest soils in the north-eastern Italian alps. In our study, several stands having different bedrock composition including acid, basic and intermediate types, facing northern or southern slope exposure and being in one of four stand age classes such as gap, innovation, aggradation and biostatic were investigated to examine the effect of these factors and their combinations on the associated fungal communities. The aim of the project is to assess the overall fungal diversity across a range of different conditions and to rank the shaping forces of different environmental factors over soil fungal community composition. In particular the analysis aims at evidencing the extent of conserved taxa and their site specificities across a given geographic range and through a gradient of environmental conditions. The hierarchical order in which these impinge on community diversity is a further aspect on which the present investigation is focused. The results will be discussed under different ecological perspectives.

Parole Chiave: Metagenomics, Spruce, *Picea abies*, ITS Sequencing, Fungal Biodiversity, 454 Sequencing

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