

SOIL FAUNA BIODIVERSITY RESPONSES TO SIMULATED ANTHROPOGENIC DISTURBANCES IN EUROPEAN OAK FORESTS (HOLISOILS H-2020 PROJECT)

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Soil biodiversity is essential for forest ecosystem functioning as they play key roles in litter decomposition or nutrient recycling. However, perturbations due to anthropogenic (thinning/clear-cut/slash removal) sources can lead to strong impacts on soil biodiversity. In a context of climate-smart forestry, our knowledge about soil biodiversity responses to forest perturbations need to be improved. In the framework of HoliSoils project, we established three study sites in oak-dominated forests located in Spain (*Quercus faginea*), France (*Quercus pubescens*) and Romania (*Quercus robur*) to study the impact of tree removal intensity on soil biodiversity.

The first results recorded in Spain pointed out a negative effect of both tree and slash removals whatever the soil biota group considered. In addition, the intensity of these effects increased with organism size. Next steps will include a comparison of response patterns between the three study sites and a survey of these responses over longer times.

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