

Master thesis:

How does deadwood management affect soil organic matter stability and carbon sequestration potential?

In the *PoToMa* project, which investigates the ecological effects of deadwood treatments, you will address relevant questions in silviculture/ecology related to carbon sequestration, such as:

1. How does soil organic matter (SOM) change when living trees are present, deadwood is standing, deadwood is lying, or the plot is cleared of deadwood?
2. How does SOM change with forest floor/soil depth?
3. How viable is SOM density fractionation as a method for assessing SOM stability and carbon sequestration potential?

Your tasks:

- Preparation: literature review, preparing samples for analysis
- Lab work: Run preliminary tests, establish method for SOM density fractionation in the lab using published protocols, analyze samples
- Data synthesis: Analyze the influence of deadwood management on SOM stability and present the findings in a seminar for the research group, possibility of publishing the results in a scientific journal

Start:

Feb 2026

Requirements:

- Interest in biogeochemical processes and methods, lab work
- Basic skills in lab work and statistical analysis (R)
- Willingness to test and develop methods/ideas as needed, adaptability, motivation to draw ecologically meaningful conclusions (in German or English)

If you are interested, please contact:
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PoToMa:

