



Comments

Carbon pools in and on soils

■ **Belowground biomass:** varying definitions of fine roots (<1 to 5 mm)

→ not so sensitive for C stock, very sensitive for C stock changes due to short (and variable) turnover rates

■ **Dead wood:** in Switzerland, data about stocks (NFI III, 2006), no data about stock changes yet (NFI IV, 2016??)

→ important litter input for soil models



Comments

Stratified sampling

■ **Stratification optimized for C stocks**, also optimal for stock changes? → Large stocks also show the largest stock changes?

■ **Temporal permanence**: stratification constant over time → Permanent sample plots?

■ **Soil inventories are expensive**: What is the aim? Carbon estimation? → Optimization for carbon also optimal for other variables?



Comments

Funding of soil inventory: who is interested in C inventory?

■ Politicians

- Commitments to report stock changes to UNFCCC and the Kyoto Protocol
- Soils as carbon sink/source → short-term changes often small

■ Science

- Input data for modeling soil processes
- Validation data for soil models



Comments

Soil inventory in Switzerland

- Soil inventory 1993, framework of Swiss forest damage inventory
- 8 x 8 km grid, 168 plots
- Only one profile per sample plot, no repetitions → no plot variability
- Geostatistical analysis showed no autocorrelation



Comments

Thank you.