Project Database of ICP Forests

PROJECT DESCRIPTION

PROJECT INFORMATION

Project title:	**A pan-European assessment of the vitality and growth of European beech. A drought analysis of the foliation responses across various climatic gradients**
Project ID:	277
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Hypotheses

1. Recent foliation recovery patterns in beech under drought show a decline linked to past events and comparable to growth pointer years.

2. Previous year's drought conditions negatively impact the foliation and growth recovery in beech.

3. Drought interacts with sites climatic conditions (site CWB) and worsens its impact on the drier sites, with relatively better recovery under severe drought on wet sites.

Methodology

1. Lloret Indices of Resilience (Lloret et al. 2011)

2. Linear Mixed Effects Models (Pinheiro & Bates, 2000)

The used software will be the R programming software (R Core Team, 2020).

References:

Lloret, F.; Keeling, E.G.; Sala, A. (2011) Components of Tree Resilience: Effects of Successive Low-Growth Episodes in Old Ponderosa Pine Forests. Oikos 120, 1909–1920.

Pinheiro, J.C.; Bates, D.M. (2000) Mixed-Effects Models in S and S-Plus; Springer: Berlin, Germany, 548 pp.

R Core Team (2020). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. Available at: URL https://www.R-project.org/.