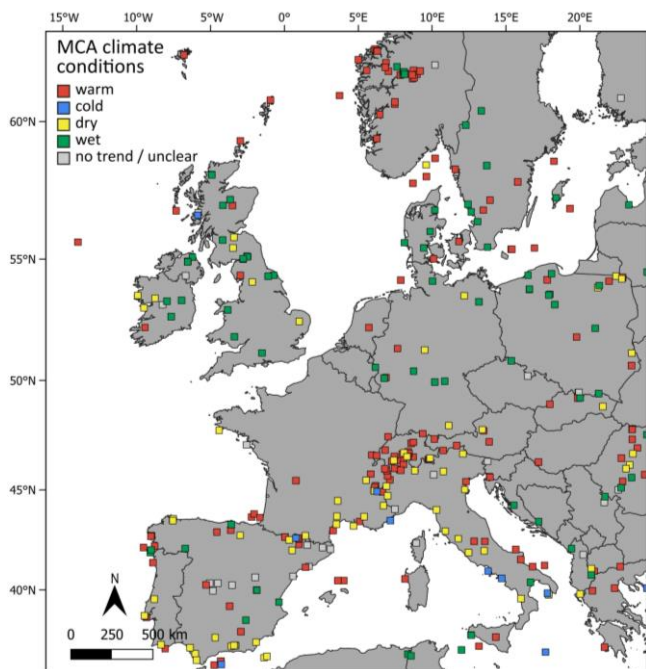# Contribution of oak tree-ring width and stable isotopes to reconstruct hydroclimate variability in central France over the last millennium

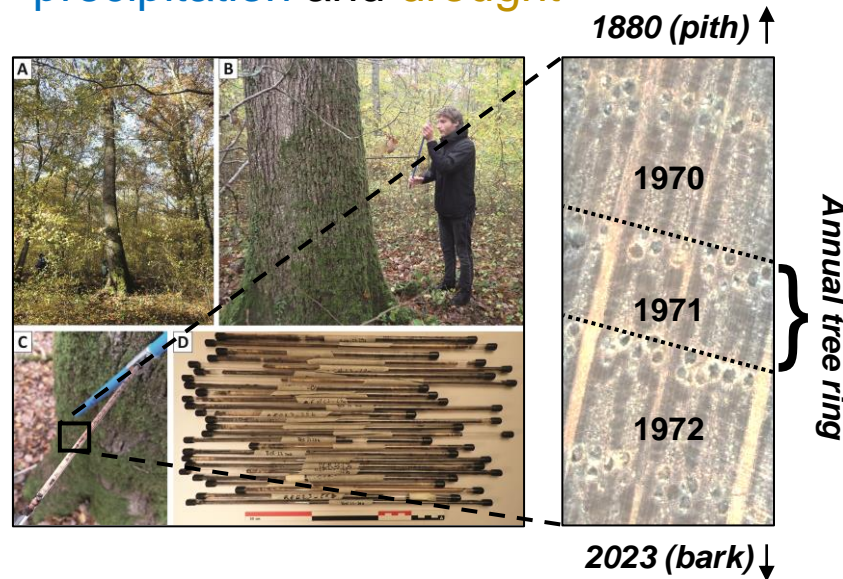Charlie Hureau et al.

Context

No climate reconstruction of the **Medieval Climate Anomaly** (~950–1250 CE) in lowland France

Material and methods

Tree-ring width (**TRW**) and oxygen (**δ¹⁸O**) and carbon (**δ¹³C**) isotopic compositions of cellulose are very good indicators of temperature, precipitation and drought

A vast corpus of living trees and archaeological wood covering the last millennium (> 3000 series)
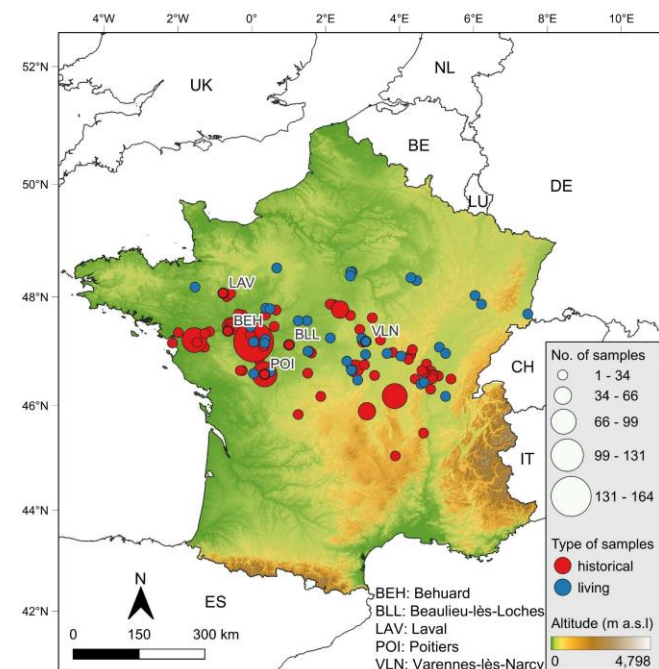
1880 (pith) ↑

1970

1971 } *Annual tree ring*

1972

2023 (bark) ↓

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Charlie Hureau et al.

Material and methods

Calibration of tree-ring parameters-climate relationships

➢ Method: linear and spatial **Pearson correlation**

➢ Number of climatic parameter tested: 8

➢ Period of test: 1910–2023 CE

➢ Temporal scale: monthly and seasonal (39 variables)

First results