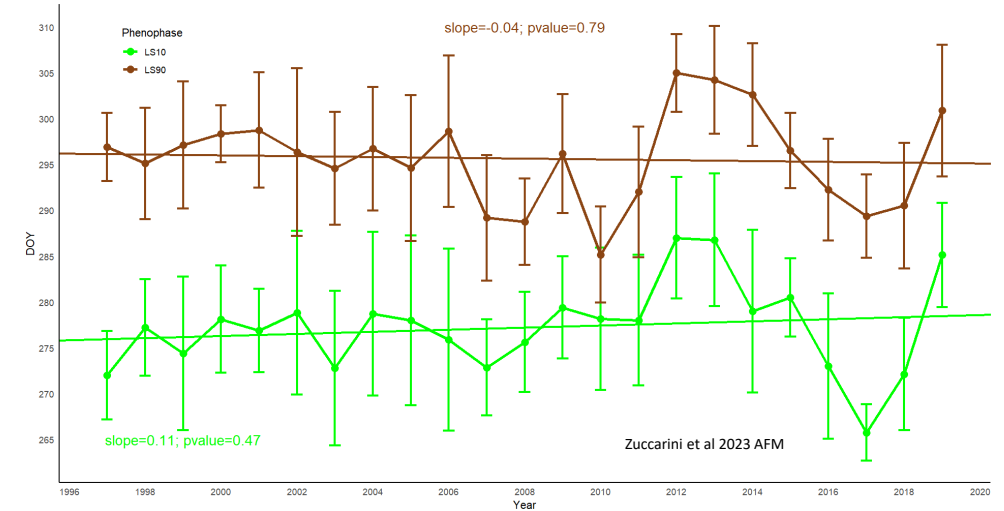




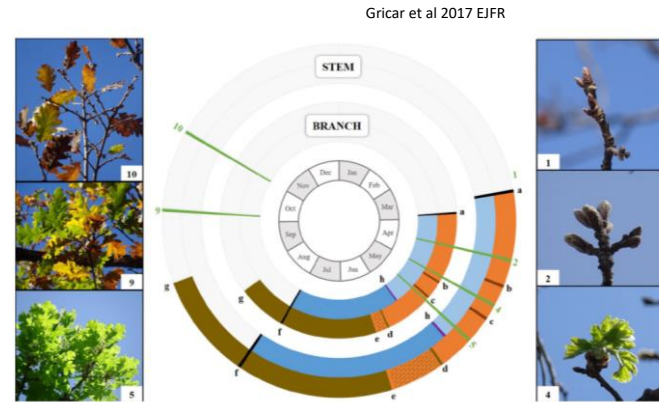
Seasonal growth in temperate deciduous forests

Matteo Campioli et al.
matteo.campioli@uantwerpen.be

- Phenology: “*study of recurrent biological events*”



- Leaves, wood, roots..



- Environmental drivers of phenology (temp, nutrients, lights etc.)

Global Change Biology (2006) 12, 1969–1976, doi: 10.1111/j.1365-2486.2006.01193.x

European phenological response to climate change matches the warming pattern

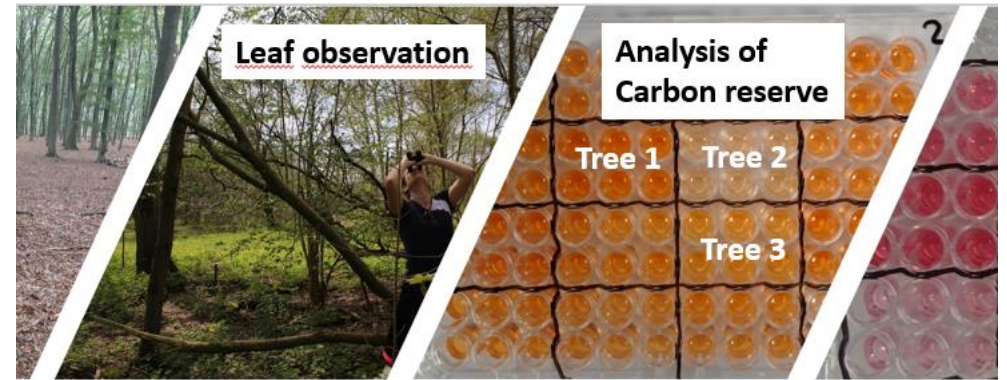
ANNETTE MENZEL*, TIM H. SPARKS†, NICOLE ESTRELLA*, ELISABETH KOCH‡, ANTO AASA§, REIN AHASS, KERSTIN ALM-KÜBLER¶, PETER BISSOLLI||

APPLICATIONS

- *climate modelling
- *forestry

Relation between spring leaf phenology and carbon and nitrogen reserves of trees in temperate Europe (Belgium, Spain, Norway)

FIELD-WORK SPRING AND SUMMER 2024 - LAB WORK
SUMMER 2024



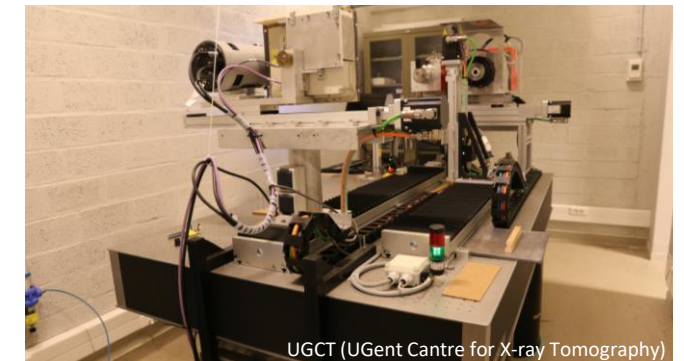
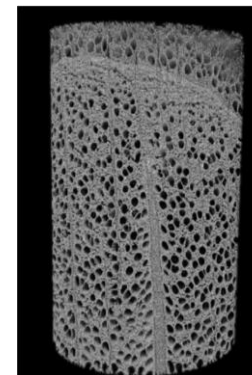
Impact of drought on tree growth and phenology: for the same species, are variates from drier regions really doing better?

FIELD-WORK SUMMER – AUTUMN 2024



Measuring seasonal wood production (with X-ray) and link to forest CO2 fluxes

HIGH-TECH with LIMITED FIELDWORK

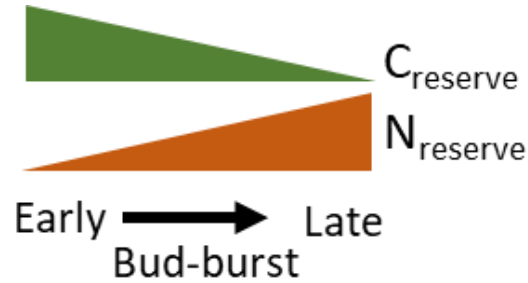


UGCT (UGent Centre for X-ray Tomography)

Some topics more suited for MP, other for IP – ask for details

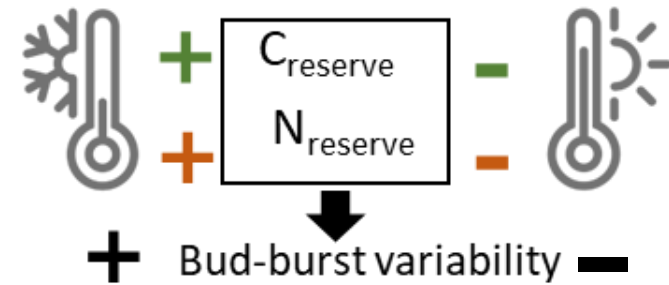
Eco-physiological dynamics behind the inter-tree bud-burst timing variability in temperate deciduous forests

H1: at individual level tree reserve content influence bud-burst timing



- Phenology observation (spring)
- Sampling of wood (spring)

H2: At population level climate condition reserve content but also individual variability



- Sampling of wood (spring)

- Bio-chemical analysis:
 - carbon reserve (starch & soluble sugar)
 - Nitrogen reserve (proteins & amino acids)
- Statistical analyses