

Monitoring campaign 2022 – Comparing Drought and Rewetting

Metadata of files: “alldata_drought_hourly.csv” & “alldata_rewetting_hourly.csv”

Publication: Ring, A.-M., Tetzlaff, D., Birkel, C., and Soulsby, C. (2025), in review: Sub-daily dynamics of urban tree xylem water and ambient vapor. *Hydrological and Earth System Sciences*. Preprint.

<https://doi.org/10.5194/egusphere-2025-1444>

Units and methods to be found in “ParameterMethod_Table.pdf”

Data in files was edited from raw data - Timezone: CEST

Naming	Detail	Hourly value calculation
Rain_mm_Tot	Precipitation amount	Hourly sums
t5med	Soil moisture median 5 cm depth – under tree	Hourly median
g5med	Soil moisture median 5 cm depth – grassland	Hourly median
t30med	Soil moisture median 30 cm depth – under tree	Hourly median
g40med	Soil moisture median 40 cm depth – grassland	Hourly median
Maple_growth	Dendrometer data/stem increment maple tree	Hourly median
birch_growth	Dendrometer data/stem increment maple tree	Hourly median
Maple_N_flow	Calculated sap flow, maple tree north	Hourly median
Maple_S_flow	Calculated sap flow, maple tree south	Hourly median
Maple_NW_flow	Calculated sap flow, maple tree northwest	Hourly median
birch_NW_flow	Calculated sap flow, birch tree northwest	Hourly median
birch_S_flow	Calculated sap flow, birch tree south	Hourly median
Grass15cm	In-situ measured atmospheric vapour isotopes above grassland, 15 cm height	Linear interpolation from 3.5 h resolution
Grass2m	In-situ measured atmospheric vapour isotopes above grassland, 2 m height	Linear interpolation from 3.5 h resolution
Grass10m	In-situ measured atmospheric vapour isotopes above grassland, 10 m height	Linear interpolation from 3.5 h resolution
Tree15cm	In-situ measured atmospheric vapour isotopes under maple canopy, 15 cm height	Linear interpolation from 3.5 h resolution
Tree2m	In-situ measured atmospheric vapour isotopes under maple canopy, 2 m height	Linear interpolation from 3.5 h resolution
Tree10m	In-situ measured atmospheric vapour isotopes under maple canopy, 10 m height	Linear interpolation from 3.5 h resolution
M_xyl	In-situ measured xylem water isotopes maple borehole 1; 1.5m height	Linear interpolation from 3.5 h resolution
B_xyl1	In-situ measured xylem water isotopes birch borehole 1; 1.5m height	Linear interpolation from 3.5 h resolution
B_xyl2	In-situ measured xylem water isotopes birch borehole 2; 2.5m height	Linear interpolation from 3.5 h resolution