

Table S1. Formulas of the applied meteorological and water balance variables.

Variable	Formula
FAI	$100 \frac{T_{VII-VIII}}{(P_{V-VII} + P_{VII-VIII})}$ where $T_{VII-VIII}$ is the average temperature (°C) in July and August, P_{V-VII} and $P_{VII-VIII}$ are the precipitation sum (mm) in the periods May to July and July to August respectively.
SPEI	$P_i - PET_i$ where P is the precipitation (mm) and PET is the potential evapotranspiration (mm) for the month i.
REW	$\frac{W - W_m}{W_f - W_m}$ where W is the available soil water (mm), W_m is the soil water at wilting point (mm) and W_f is the soil water at field capacity (mm)

Table S2. The modified Brook90 parameters (the meaning of the abbreviations can be found on the website of the Brook90 model (<http://www.ecoshift.net/brook/b90doc.html>)).

Location												
LAT (°)	46.77											
ESLOPE (°)	20.0											
ASPECT (°)	270											
Months	Jan-Feb	Mar-Apr-Maj			Jun-Jul-Aug		Sep-Oct-Nov			Dec		
DURATN (h)	5	4			2		4			5		
RELHT (-)	1											
Julian day	1	100	130	213	244	305						
RELLAI (-)	0.8	0.8	0.9	1	0.9	0.8						
Initial												
PSIM (kPa)	-10											
Flow												
IDEPH (mm)	0											
INFEXP (-)	0											
IMPERV (-)	0											
BYPAR (-)	0											
QDEPTH (mm)	0											
QFPAR (-)	0											
QFFC (-)	0											
LENGTH (m)	0											
DSLOPE (°)	0											
DRAIN (-)	1											
GSC (-)	0											
GSP (-)	0											
Fixed												
CVPD (-)	0.5											
Soil												
NLAYER (-)	7											
THICK (mm)	STONEF (-)	PSIF (kPa)	THETAF (m³/m³)	THSAT (m³/m³)	BEXP (-)	KF (mm/d)	WE TIN F (-)					
50	0.3	-10	0.30	0.6	4.5	5.0	0.92					
100	0.6	-10	0.25	0.5	4.5	5.0	0.92					
100	0.6	-10	0.18	0.5	4.5	5.0	0.92					
100	0.6	-10	0.18	0.5	4.5	5.0	0.92					
200	0.7	-10	0.18	0.5	4.5	5.0	0.92					
100	0.7	-10	0.15	0.5	4.5	5.0	0.92					
350	0.8	-10	0.15	0.5	4.5	5.0	0.92					
Canopy												
ALB (-)	0.126											
ALBSN (-)	0.314											
KSNVP (-)	0.3											
MAXHT (m)	13.6											
MAXLAI (m²/m²)	2.5											
FXYLEM (-)	0.27											
CS (-)	0.032											
PSICR (Mpa)	-2.0											
GLMAX (cm/s)	0.35											
LWIDTH (m)	0.003											
CR (-)	0.5											
Soil depth (mm)	100	200	200	200	300							
ROOTDEN (m³/m³)	1	0.7	0.6	0.5	0.2							

Table S3. Mean standardized tree-ring widths before, during and after the drought events (1993, 2000-2003 and 2011-2012) for different periods (2-3-4 years).

	1993			2000-2003			2011-2012		
Years	2	3	4	2	3	4	2	3	4
Before	1.08	0.98	1.08	1.28	1.29	1.18	1.25	1.30	-
During	0.45			0.64(0.50*)			0.72(0.55*)		-
After	1.07	0.99	1.07	0.80	0.87	0.88	0.80	0.84	-

* The minimum annual value during the period.