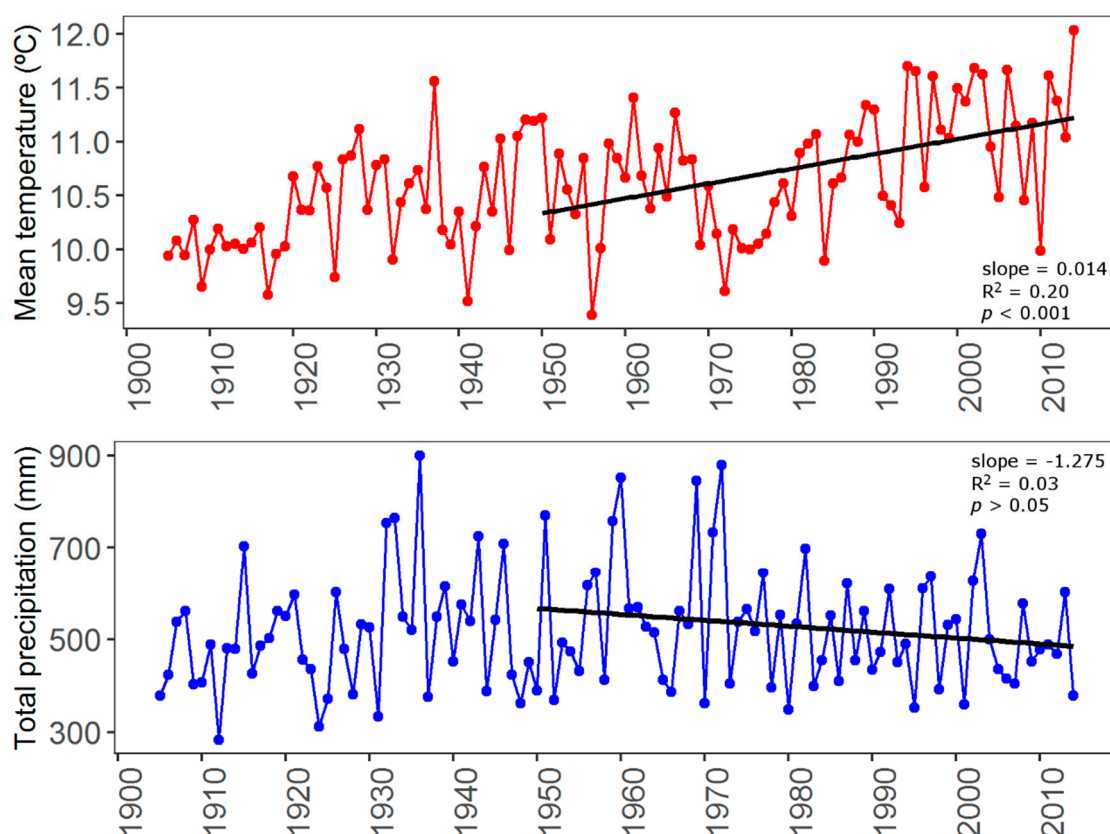**Supplementary information**

Table S1. Characteristics of the climate stations available near the study area.

Weather station	Latitude (N)	Longitude (E)	Elevation (m asl)	Time-span	Frequency
Tortosa	40°48′45″	0°31′16″	44	1905-2015	Daily
Reus	41°09′18″	1°06′31″	125	1952-2015	Daily
Montblanc	41°22′35″	1°09′50″	340	1974-1991	Monthly
Monastir Poblet	41°22′51″	1°04′57″	510	1974-2014	Daily
Riudabella	41° 22′ 21″	1° 02′ 34″	590	1995-2005	Daily
Prades	41°18′34″	0°59′16″	969	1995-2014	Daily
Tossal Baltasana	41° 19′ 34″	1° 00′ 15″	1203	2010-2014	Monthly
Tillar (study site)	41°20′0.87″	1°0′46.12″	929		

Table S2. Biometric tree characteristics. N= 16 and 9 Scots pines and pubescent oaks, respectively.

Species	DBH (cm)	Height (m)	Sapwood (cm)
Scots pine	21.90 ± 11.19	13.50 ± 3.40	5.48 ± 1.71
Pubescent oak	13.89 ± 3.79	7.72 ± 2.25	2.31 ± 0.55

Figure S1. Annual mean temperature and total sum of precipitation for the period 1901-2014. Linear regression models were fitted for the studied period 1950 – 2014.

Figure S2. Individual intra-annual growth rates of Scots pine and pubescent oak for the four consecutive growing periods 1997 – 2000. Upper and lower panels correspond to Scots pine and pubescent oak growth rates, respectively.