Supplementary Material

Table S1. R^2 values obtained from linear regressions between climate variables (precipitation, maximum temperature and PDSI) from the corresponding months (predictor variables) and annual ring-width index of the same year (response variable). Values shown here are sums of R^2 values from linear regression models run separately for all four sites. R^2 values only from statistically significant regressions were used to calculate the sums.

Period	Precipitation	Maximum Temperature	PDSI
Feb	0.23	0.15	0.37
Mar	0.25	0.04	0.49
Apr	0.29	0.06	0.63
May	0.44	0.23	0.76
Jun	0.40	0.51	0.91
Jul	0.58	0.72	**1.39**
Aug	0.14	0.17	1.20
Sep	0.03	0.22	0.64
Feb-Mar	0.22	0.08	0.44
Feb-Apr	0.21	0.11	0.53
Feb-May	0.42	0.14	0.63
Feb-Jun	0.63	0.26	0.74
Feb-Jul	1.17	0.35	0.90
Feb-Aug	1.26	0.43	0.99
Feb-Sep	0.62	0.48	1.00
Mar-Apr	0.46	0.05	0.58
Mar-May	1.02	0.08	0.68
Mar-Jun	0.74	0.24	0.79
Mar-Jul	1.17	0.40	0.96
Mar-Aug	1.23	0.28	1.05
Mar-Sep	0.66	0.30	1.04
Apr-May	0.88	0.12	0.73
Apr-Jun	0.60	0.36	0.84
Apr-Jul	1.35	0.54	1.02
Apr-Aug	1.35	0.42	1.10
Apr-Sep	0.73	0.45	1.08
May-Jun	0.63	0.55	0.87
May-Jul	**1.39**	**0.75**	1.08
May-Aug	1.26	0.64	1.16
May-Sep	0.65	0.67	1.11
Jun-Jul	1.05	0.70	1.17
Jun-Aug	0.85	0.68	1.23
Jun-Sep	0.45	0.66	1.15
Jul-Aug	0.51	0.58	1.35
Jul-Sep	0.21	0.55	1.17
Aug-Sep	0.05	0.27	0.96

Table S2. R^2 values obtained from linear regressions between climate variables (precipitation and maximum temperature) from the corresponding months (predictor variables) and annual tree-ring $\delta^{13}C$ values of the same year (response variable). Values shown here are sums of R^2 values from linear regression models run separately for all four sites. R^2 values only from statistically significant regressions were used to calculate the sums. PDSI had no correlation with tree-ring $\delta^{13}C$ values.

Period	Precipitation	Maximum Temperature
Feb	0.29	0.12
Mar	1.18	0.52
Apr	**1.88**	**1.86**
May	0.41	0.06
Jun	0.37	0.17
Jul	0.61	0.33
Aug	0.62	1.02
Sep	0.24	0.81
Feb-Mar	0.79	0.56
Feb-Apr	1.24	0.61
Feb-May	1.26	0.45
Feb-Jun	0.93	0.34
Feb-Jul	1.15	0.34
Feb-Aug	1.26	0.47
Feb-Sep	0.77	0.51
Mar-Apr	1.64	0.95
Mar-May	1.77	0.65
Mar-Jun	1.04	0.51
Mar-Jul	1.28	0.47
Mar-Aug	1.34	0.60
Mar-Sep	0.81	0.62
Apr-May	1.32	1.07
Apr-Jun	0.79	0.78
Apr-Jul	1.18	0.63
Apr-Aug	1.22	0.75
Apr-Sep	0.72	0.75
May-Jun	0.41	0.11
May-Jul	0.83	0.24
May-Aug	0.88	0.43
May-Sep	0.51	0.45
Jun-Jul	0.88	0.30
Jun-Aug	0.92	0.57
Jun-Sep	0.54	0.56
Jul-Aug	0.72	0.69
Jul-Sep	0.85	0.70
Aug-Sep	0.53	0.87