

Table S1 – Zonal $\Delta^{14}\text{C}$ (‰) values for boreal and austral summers for the period 1970-1974

	Year AD	NH zone 1	NH zone 2	NH zone 3	SH zone 3	SH zone 1-2
<i>Boreal summers (May-Aug)</i>						
	1970.5	523 ± 13 (4)	501 ± 7 (3)	508 ± 7 (1)	n/a	515 ± 14 (3)
	1971.5	513 ± 18 (4)	482 ± 6 (2)	526 ± 7 (1)	n/a	489 ± 9 (3)
	1972.5	461 ± 16 (4)	478 ± 6 (2)	458 ± 9 (1)	n/a	470 ± 5 (3)
	1973.5	448 ± 12 (3)	439 ± 7 (2)	433 ± 8 (1)	n/a	438 ± 7 (3)
	1974.5	417 ± 14 (4)	402 ± 6 (1)	412 ± 6 (1)	n/a	404 ± 8 (3)
<i>Austral summers (Nov-Feb)</i>						
	1970.0	548 ± 4 (2)	531 ± 22 (1)	n/a	527 ± 6 (1)	524 ± 11 (5)
	1971.0	503 ± 7 (2)	497 ± 7 (1)	n/a	521 ± 5 (1)	500 ± 8 (5)
	1972.0	487 ± 12 (2)	496 ± 7 (1)	n/a	503 ± 5 (1)	487 ± 6 (5)
	1973.0	447 ± 14 (2)	455 ± 7 (1)	n/a	460 ± 5 (1)	462 ± 9 (4)
	1974.0	423 ± 7 (2)	411 ± 20 (1)	n/a	427 ± 5 (1)	414 ± 13 (7)

Note:

- Number in brackets (eg, (4)) represents number of records used for estimating zonal mean values.
- n/a = no experimental data are available.
- $\Delta^{14}\text{C}$ values highlighted in grey overlap each other within 1σ uncertainties. This suggests that since 1973, atmospheric $\Delta^{14}\text{C}$ values at different locations have been similar. As a result, for this period only one summer data set for each hemisphere was compiled as shown in Tables S2a & S2b.