

Supplement of

Air temperature changes in Wrocław (SW Poland) in 1773–81 based on a newly discovered series of meteorological measurements

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Table S1. Mean monthly and annual differences in air temperature (°C) between MDATs calculated according to formulas MDAT2–MDAT11 in comparison to the average calculated using the MDAT1 formula

Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
MDAT2-MDAT1	0.3	0.2	0.3	0.9	1.3	1.4	1.4	1.2	0.6	0.2	0.2	0.3	0.69
MDAT3-MDAT1	0.2	0.4	0.6	1.2	1.5	1.6	1.5	1.3	1.0	0.7	0.4	0.3	0.89
MDAT4-MDAT1	0.2	0.6	0.9	1.5	1.5	1.5	1.5	1.6	1.3	1.0	0.6	0.3	1.04
MDAT5-MDAT1	0.1	0.4	0.5	1.0	1.0	1.0	1.0	0.9	0.7	0.6	0.3	0.1	0.63
MDAT6-MDAT1	0.0	0.1	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.2	0.1	0.0	0.24
MDAT7-MDAT1	0.1	-0.1	-0.2	0.0	0.2	0.2	0.2	0.0	-0.2	-0.2	0.0	0.1	0.01
MDAT8-MDAT1	0.0	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.2	0.0	-0.33
MDAT9-MDAT1	0.0	-0.1	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	-0.03
MDAT10-MDAT1	0.0	-0.1	-0.1	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	-0.03
MDAT11-MDAT1	0.2	0.4	0.8	1.6	2.0	2.1	2.2	1.9	1.1	0.6	0.3	0.2	1.12
Max bias from all formulas	0.3	0.6	0.9	1.6	2.0	2.1	2.2	1.9	1.3	1.0	0.6	0.3	1.23
Mean - all formulas	0.1	0.2	0.3	0.6	0.8	0.8	0.8	0.7	0.4	0.2	0.2	0.1	0.43
Mean bias from formulas 7-10	0.0	-0.2	-0.2	-0.1	0.0	-0.1	0.0	-0.1	-0.2	-0.2	-0.1	0.0	-0.09
Max bias from formulas 7-10	0.1	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.2	0.1	-0.31

Explanation: MDAT1 = (T1+T2+T3, ... T24)/24; MDAT2 = (T6+T12+T18)/3; MDAT3 = (T7+T13+T19)/3; MDAT4 = (T8+T14+T20)/3; MDAT5 = (T8+T14+2*T20)/4; MDAT6 = (T8+T14+2*T21)/4; MDAT7 = (T6+T12+2*T20)/4; MDAT8 = (T6+T12+2*T21)/4; MDAT9 = (T7+T12+2*T21)/4; MDAT10 = (T7+T13+2*T21)/4; MDAT11 = (T7+T13+2*T18)/4

Table S2. Mean monthly, seasonal and annual air temperature (°C) in Wrocław for three measurement times (morning, midday and evening), daily mean (mean) and highest (tmax) and lowest (tmin) monthly mean, 1773–81

Period	J	F	M	A	M	J	J	A	S	O	N	D	DJF	MAM	JJA	SON	YEAR
morning	-3.4	-0.5	3.1	7.1	12.0	15.8	17.1	16.8	12.5	8.0	3.3	0.7	-1.1	7.4	16.5	7.9	7.7
midday	-1.0	2.9	7.6	12.8	18.1	21.9	23.4	23.1	17.9	12.4	5.9	2.5	1.5	12.8	22.8	12.1	12.3
evening	-2.8	0.5	4.0	8.5	13.5	17.2	18.4	18.4	13.8	8.9	4.0	0.9	-0.5	8.7	18.0	8.9	8.8
tmax	2.2	7.6	9.9	15.9	21.4	24.8	24.8	26.4	20.8	15.4	7.3	5.6	3.9	15.0	25.0	13.9	13.5
mean	-2.5	0.9	4.7	9.2	14.3	18.0	19.3	19.2	14.5	9.6	4.3	1.3	-0.2	9.4	18.8	9.5	9.4
tmin	-10.4	-4.2	0.8	4.6	9.5	14.2	15.9	15.2	10.4	5.5	-2.5	-2.9	-3.5	6.2	15.4	5.2	6.8

Explanation: tmax – highest monthly, seasonal and annual value extracted from three measurement times

Tmin – lowest monthly, seasonal and annual value extracted from three measurement times