

**Table S1.** Descriptive statistic of the heatwave (HW) characteristics during the 1980-2015 period in the 28 EU Member States capitals. HW<sub>D</sub>: number of HW days; HW<sub>L</sub>: long HWs; HW<sub>I</sub>: high-intensity HWs; HW<sub>T</sub>: timing of the first simultaneously long and high-intensity HW; AT<sub>max</sub> and T<sub>min</sub> represent the average maximum apparent and minimum temperatures respectively during HW<sub>D</sub>; 75th and 25th percentiles in square brackets; frequency of years with at least one simultaneously long and high-intensity HW in round brackets.

EU capitals	HW <sub>D</sub>			HW <sub>L</sub>	HW <sub>I</sub>	HW <sub>T</sub>
	N	AT <sub>max</sub> (°C)	T <sub>min</sub> (°C)			
<b>Northern cities</b>						
Dublin	13 [9-19]	24 [22-26]	13 [11-14]	2 [1-3]	1 [0-2]	Jul-11 (56%)
London	16 [8-22]	30 [27-32]	15 [13-17]	3 [1-4]	1 [0-2]	Jun-08 (56%)
Copenhagen	15 [9-21]	26 [24-30]	15 [13-17]	3 [2-3]	1 [0-3]	Jun-29 (72%)
Stockholm	14 [11-21]	27 [24-30]	14 [11-16]	3 [1-3]	1 [0-2]	Jul-02 (58%)
Tallinn	14 [9-25]	28 [25-31]	13 [11-15]	3 [1-3]	1 [0-2]	Jun-03 (53%)
Helsinki	16 [10-28]	28 [23-30]	13 [10-15]	3 [2-5]	1 [1-3]	Jul-08 (61%)
Riga	14 [9-21]	30 [27-32]	15 [13-17]	2 [1-3]	2 [1-2]	Jul-02 (65%)
Vilnius	16 [9-20]	31 [28-33]	15 [13-16]	2 [1-3]	2 [1-3]	Jun-22 (64%)
Median value	15 [9-21]	28 [24-31]	14 [12-16]	2 [1-3]	1 [0-2]	Jun-20 (60%)
<b>Western cities</b>						
Paris	15 [9-24]	33 [31-36]	17 [15-18]	3 [2-4]	2 [1-3]	Jun-30 (64%)
Brussels	16 [10-22]	31 [28-33]	15 [14-17]	3 [2-4]	1 [1-2]	Jul-04 (61%)
Amsterdam	18 [10-24]	29 [27-32]	15 [13-16]	3 [1-4]	2 [0-2]	Jul-05 (64%)
Luxembourg	17 [11-22]	31 [29-33]	17 [15-18]	3 [1-4]	2 [1-3]	Jul-01 (75%)
Berlin	18 [12-24]	32 [30-35]	17 [15-19]	3 [2-4]	2 [1-3]	Jun-16 (67%)
Vienna	17 [10-26]	34 [30-36]	17 [15-18]	3 [2-4]	1 [0-3]	Jul-12 (56%)
Median value	16 [10-23]	32 [29-35]	16 [14-18]	3 [2-4]	1 [1-3]	Jun-29 (64%)
<b>Eastern cities</b>						
Prague	16 [11-22]	32 [29-34]	15 [13-16]	3 [2-4]	1 [1-2]	Jun-22 (69%)
Bratislava	17 [10-25]	35 [32-37]	17 [15-18]	3 [2-5]	1 [0-2]	Jul-04 (58%)
Budapest	15 [9-25]	35 [32-38]	17 [14-19]	3 [1-4]	1 [0-3]	Jun-26 (67%)
Warsaw	16 [12-25]	32 [29-35]	15 [13-17]	3 [2-4]	2 [1-3]	Jun-30 (72%)
Sofia	14 [9-29]	35 [32-37]	16 [14-17]	3 [1-5]	1 [1-4]	Jun-22 (63%)
Bucharest	14 [9-29]	38 [35-40]	18 [15-19]	2 [1-5]	1 [1-3]	Jul-12 (53%)
Median value	16 [10-25]	34 [31-37]	16 [14-18]	3 [2-4]	1 [1-3]	Jun-27 (64%)
<b>Southern cities</b>						
Lisbon	14 [11-22]	37 [34-39]	20 [19-22]	3 [2-5]	2 [1-3]	Jun-17 (72%)
Madrid	15 [8-26]	37 [34-39]	18 [15-20]	3 [1-4]	1 [0-2]	Jun-17 (53%)
Rome	13 [6-23]	39 [35-40]	21 [18-22]	2 [1-4]	1 [0-2]	Jul-07 (64%)
Valetta	13 [5-25]	39 [36-41]	24 [21-24]	2 [1-4]	1 [0-2]	Aug-02 (42%)
Ljubljana	14 [9-23]	35 [31-37]	15 [13-16]	3 [1-4]	1 [0-2]	Jul-11 (47%)
Zagreb	15 [8-28]	35 [32-37]	20 [17-21]	3 [1-4]	1 [0-3]	Jul-14 (64%)
Athens	12 [5-28]	37 [34-40]	23 [21-25]	2 [1-4]	1 [0-2]	Jul-08 (52%)
Nicosia	15 [6-24]	34 [30-36]	17 [15-18]	2 [0-4]	1 [0-2]	Jun-15 (47%)

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Median value    14 [7-24]    37 [34-40]    20 [17-23]    2 [1-4]    1 [0-2]    Jul-04 (55%)