











Supplementary Materials: Air Humidity Characteristics in “Local Climate Zones” of Novi Sad (Serbia) Based on Long-Term Data

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Table S1. Typical surface properties of 250 m radius environment around stations for each LCZ (obtained from Lelovics et al. 2016). Abbreviations refer to surface properties: HRE – height of roughness elements (m), SVF – sky view factor, BSF – building surface factor, ISF – impervious surface factor, PSF – pervious surface factor, ALB – albedo. NOTE: Low-level photo of representative location in each LCZ is given in the table. Aerial photos of representative stations are obtained from Google Earth Pro for 250 m radius environment around stations (yellow circle) (obtained from [47]).

LCZ	Number of stations	Surface properties	Low-level photo	Aerial photo (250 m radius)
LCZ 2	Two stations	HRE 16.2 – 20.8 SVF 0.47 – 0.59 BSF 0.26 – 0.38 ISF 0.59 – 0.63 PSF 0.02 – 0.14 ALB 0.15 – 0.17	Station 2-2 	Station 2-2 
LCZ 5	Five stations	HRE 15.9 – 25.7 SVF 0.64 – 0.88 BSF 0.09 – 0.35 ISF 0.46 – 0.67 PSF 0.08 – 0.33 ALB 0.16 – 0.18	Station 5-6 	Station 5-6 
LCZ 6	Three stations	HRE 12 SVF 0.63 – 0.99 BSF 0.18 – 0.21 ISF 0.62 – 0.86 PSF 0.08 – 0.38 ALB 0.16 – 0.18	Station 6-4 	Station 6-4 
LCZ 8	One station	HRE 12 SVF 0.84 BSF 0.31 ISF 0.47 PSF 0.23 ALB 0.17	Station 8-1 	Station 8-1 
LCZ 9		HRE 12	Station 9-2 	Station 9-2 

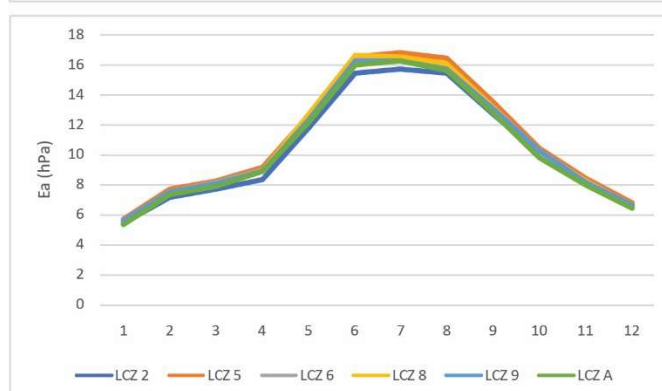
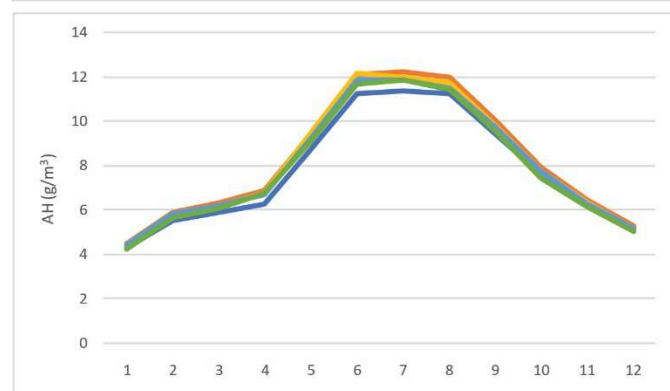
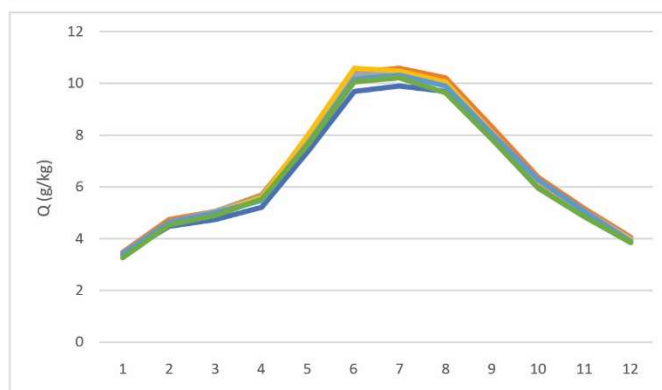
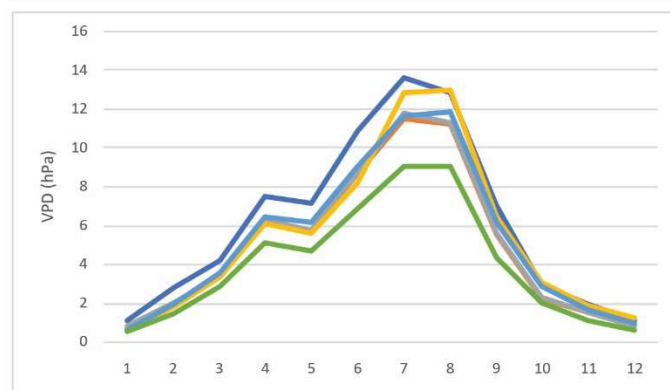
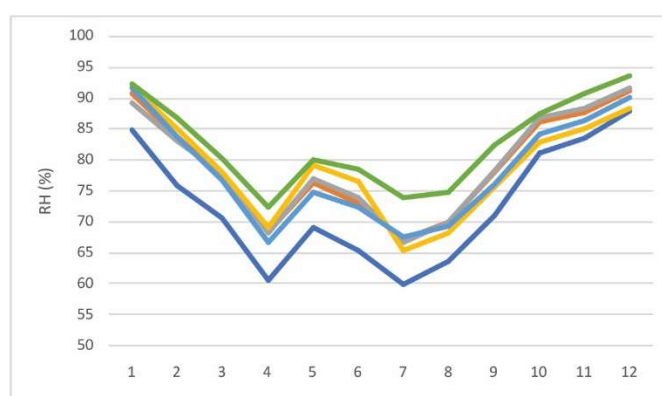
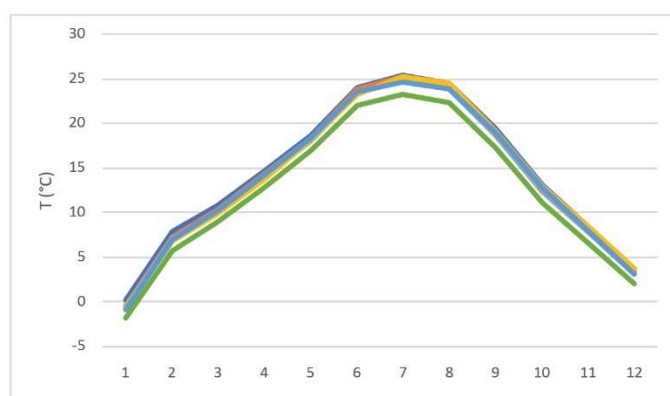
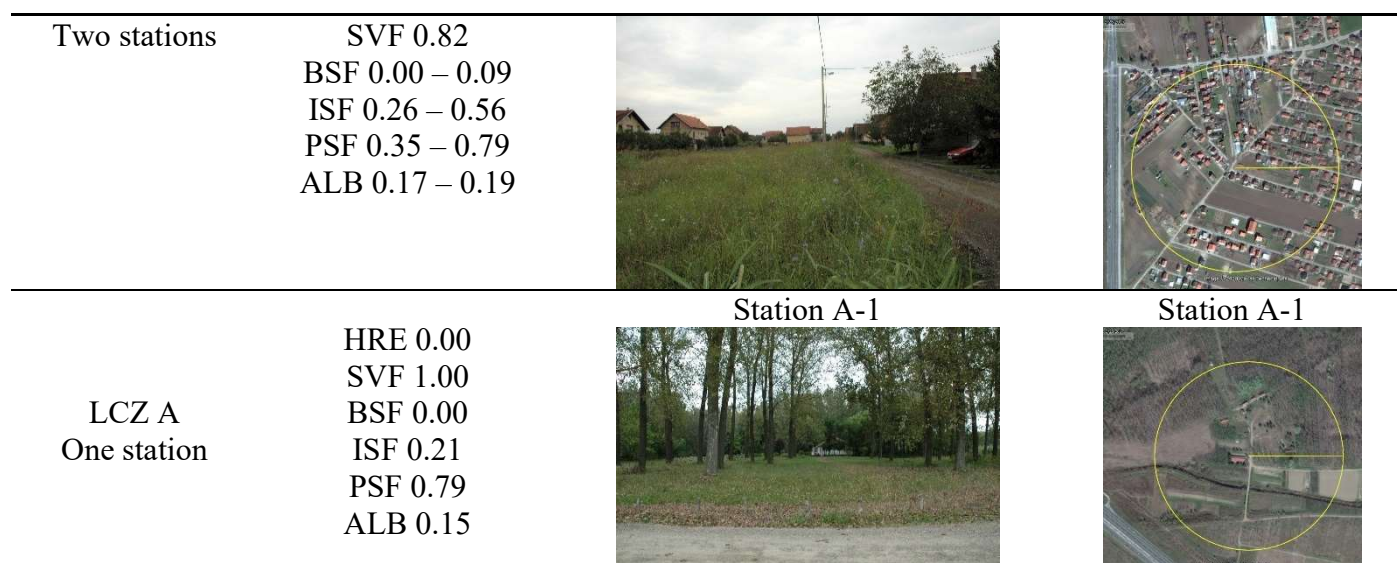


Figure S1. Monthly averages (Dec 2015–Dec 2017) of air temperature and humidity parameters (RH, VPD, Q, AH and Ea) in LCZs of Novi Sad.

T LCZ X - LCZ A	LCZ 2	LCZ 5	LCZ 6	LCZ 8	LCZ 9	RH LCZ x - LCZ A	LCZ 2	LCZ 5	LCZ 6	LCZ 8	LCZ 9
January	1.96	1.38	1.19	1.03	0.93	January	-7.33	-1.40	-3.12	-0.35	-0.61
February	1.99	1.51	1.31	0.94	1.19	February	-10.97	-3.12	-3.73	-1.81	-3.14
March	1.76	1.40	1.11	0.98	1.23	March	-9.75	-2.83	-2.45	-2.24	-3.65
April	1.78	1.39	1.18	0.96	1.30	April	-11.91	-4.04	-4.22	-3.27	-5.74
May	1.59	1.31	1.09	1.16	1.30	May	-10.96	-3.64	-3.03	-0.72	-5.22
June	1.89	1.67	1.33	1.23	1.48	June	-12.97	-5.36	-4.59	-1.85	-6.06
July	2.05	1.90	1.49	2.02	1.36	July	-13.92	-6.66	-7.11	-8.37	-6.24
August	2.07	1.97	1.52	2.15	1.55	August	-11.26	-4.91	-4.94	-6.61	-5.45
September	2.12	1.89	1.39	1.98	1.70	September	-11.45	-4.42	-4.10	-6.74	-6.31
October	1.81	1.57	1.07	1.84	1.66	October	-6.36	-1.23	-0.67	-4.61	-3.21
November	1.87	1.71	1.22	1.89	1.40	November	-7.11	-3.07	-2.25	-5.60	-4.35
December	1.70	1.37	0.97	1.59	1.07	December	-5.67	-2.37	-1.88	-5.35	-3.45
VPD LCZ x - LCZ A	LCZ 2	LCZ 5	LCZ 6	LCZ 8	LCZ 9	Ea LCZ x - LCZ A	LCZ 2	LCZ 5	LCZ 6	LCZ 8	LCZ 9
January	0.57	0.15	0.27	0.07	0.09	January	0.10	0.32	0.14	0.27	0.23
February	1.32	0.46	0.53	0.32	0.45	February	-0.17	0.34	0.20	0.19	0.19
March	1.37	0.49	0.44	0.47	0.67	March	-0.20	0.33	0.23	0.17	0.17
April	2.43	1.05	1.18	1.03	1.37	April	-0.57	0.21	0.03	0.01	-0.05
May	2.51	0.96	1.00	0.93	1.47	May	-0.45	0.41	0.27	0.50	0.14
June	3.99	1.81	1.81	1.32	2.22	June	-0.53	0.61	0.34	0.67	0.26
July	4.57	2.44	2.71	3.83	2.58	July	-0.57	0.60	0.04	0.27	0.00
August	3.79	2.11	2.23	3.95	2.81	August	-0.14	0.86	0.37	0.54	0.14
September	2.65	1.14	1.22	2.08	1.81	September	-0.10	0.75	0.37	0.43	0.30
October	0.99	0.27	0.25	1.08	0.88	October	0.28	0.71	0.47	0.45	0.48
November	0.88	0.44	0.38	0.80	0.64	November	0.15	0.47	0.29	0.29	0.22
December	0.53	0.27	0.21	0.64	0.41	December	0.15	0.29	0.18	0.12	0.12
AH LCZ x - LCZ A	LCZ 2	LCZ 5	LCZ 6	LCZ 8	LCZ 9	Q LCZ x - LCZ A	LCZ 2	LCZ 5	LCZ 6	LCZ 8	LCZ 9
January	0.05	0.23	0.09	0.20	0.16	January	0.07	0.21	0.08	0.16	0.14
February	-0.17	0.23	0.13	0.13	0.12	February	-0.09	0.23	0.12	0.12	0.13
March	-0.19	0.23	0.15	0.11	0.11	March	-0.16	0.19	0.13	0.09	0.07
April	-0.46	0.13	0.00	-0.01	-0.07	April	-0.34	0.14	0.10	0.02	-0.05
May	-0.38	0.26	0.17	0.34	0.06	May	-0.32	0.22	0.16	0.34	0.02
June	-0.45	0.39	0.20	0.45	0.14	June	-0.39	0.38	0.27	0.49	0.11
July	-0.49	0.36	-0.02	0.12	-0.05	July	-0.36	0.35	0.05	0.20	0.08
August	-0.17	0.55	0.22	0.32	0.06	August	-0.01	0.57	0.30	0.35	0.21
September	-0.13	0.50	0.24	0.26	0.17	September	-0.02	0.48	0.24	0.25	0.17
October	0.17	0.50	0.33	0.30	0.32	October	0.19	0.43	0.26	0.27	0.31
November	0.08	0.33	0.20	0.19	0.14	November	0.13	0.31	0.19	0.20	0.16
December	0.09	0.20	0.12	0.06	0.07	December	0.10	0.18	0.10	0.07	0.04

Figure S2. Monthly mean differences in air temperature and humidity parameters (RH, VPD, Ea, AH and Q) between urban LCZs (2, 5, 6, 8, and 9) and rural LCZ A (positive difference—blue, negative difference—red).

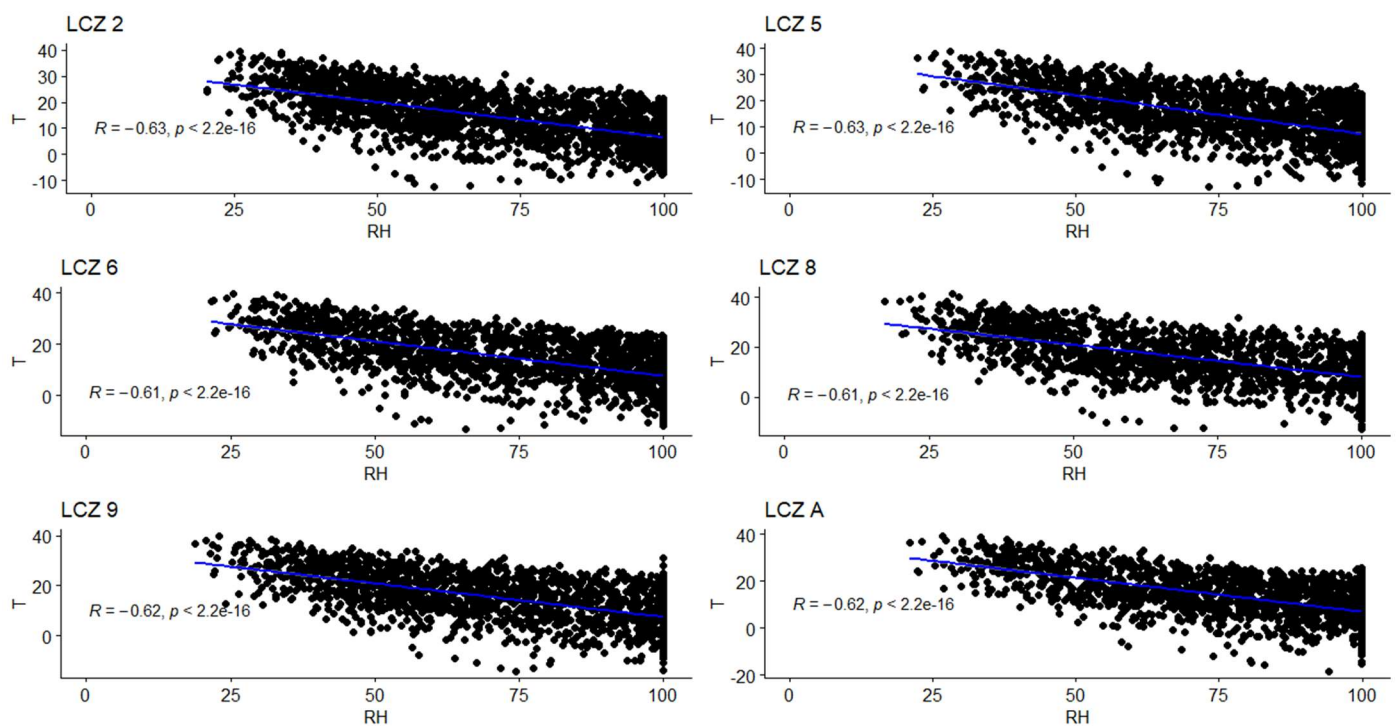


Figure S3. Relationship between air temperature T (°C) and relative humidity RH (%), in LCZ 2 and LCZ A during the two-year period in Novi Sad.

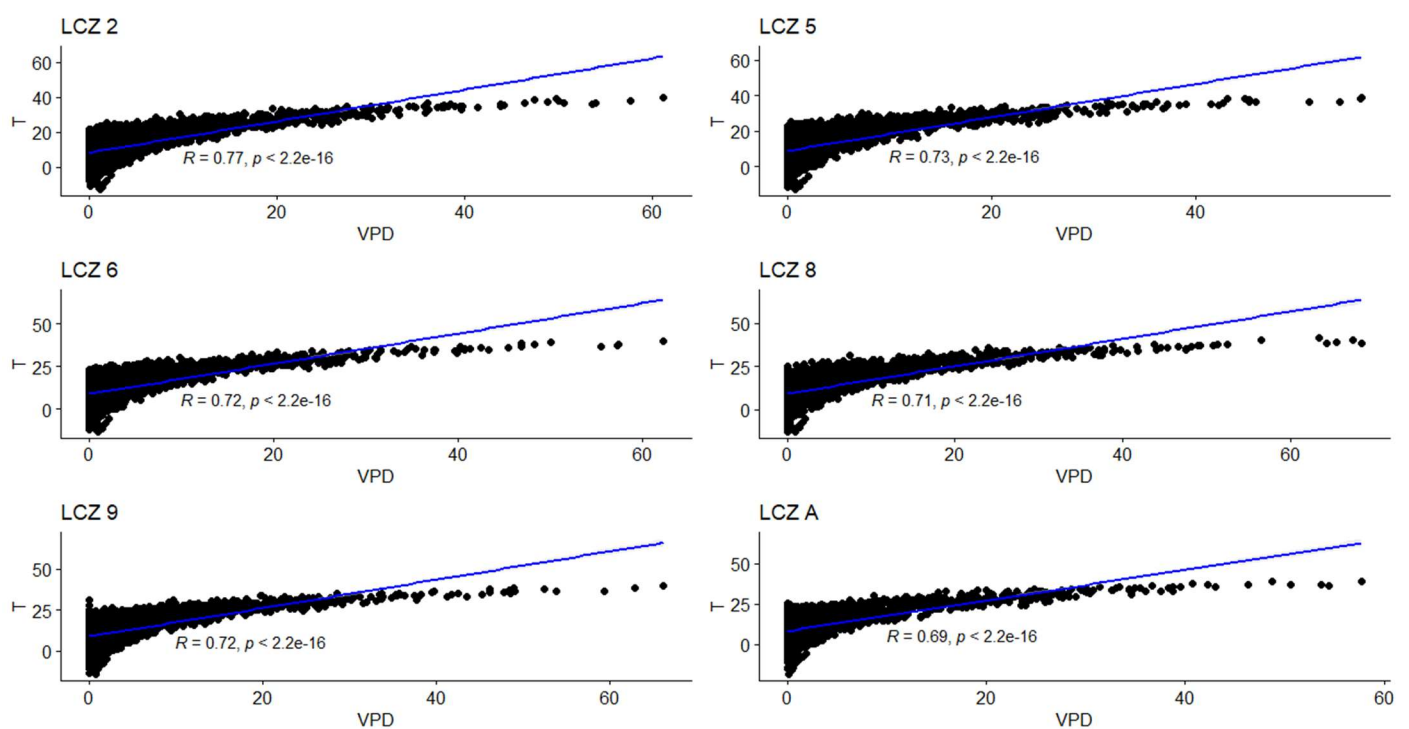


Figure S4. Relationship between air temperature T (°C) and vapor pressure deficit VPD (hPa) in LCZ 2 and LCZ A during the two-year period in Novi Sad.

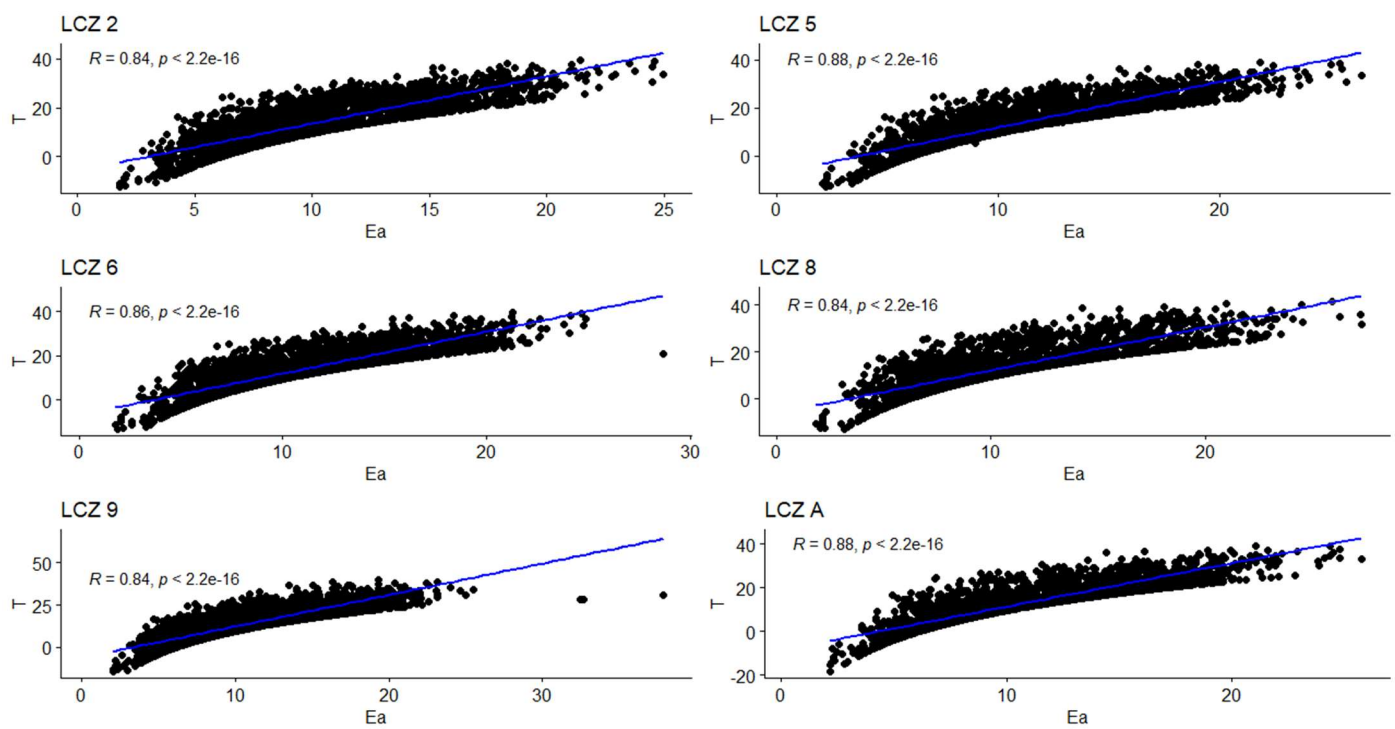


Figure S5. Relationship between air temperature T (°C) and atmospheric water vapor pressure Ea (hPa) in LCZ 2 and LCZ A during the two-year period in Novi Sad.

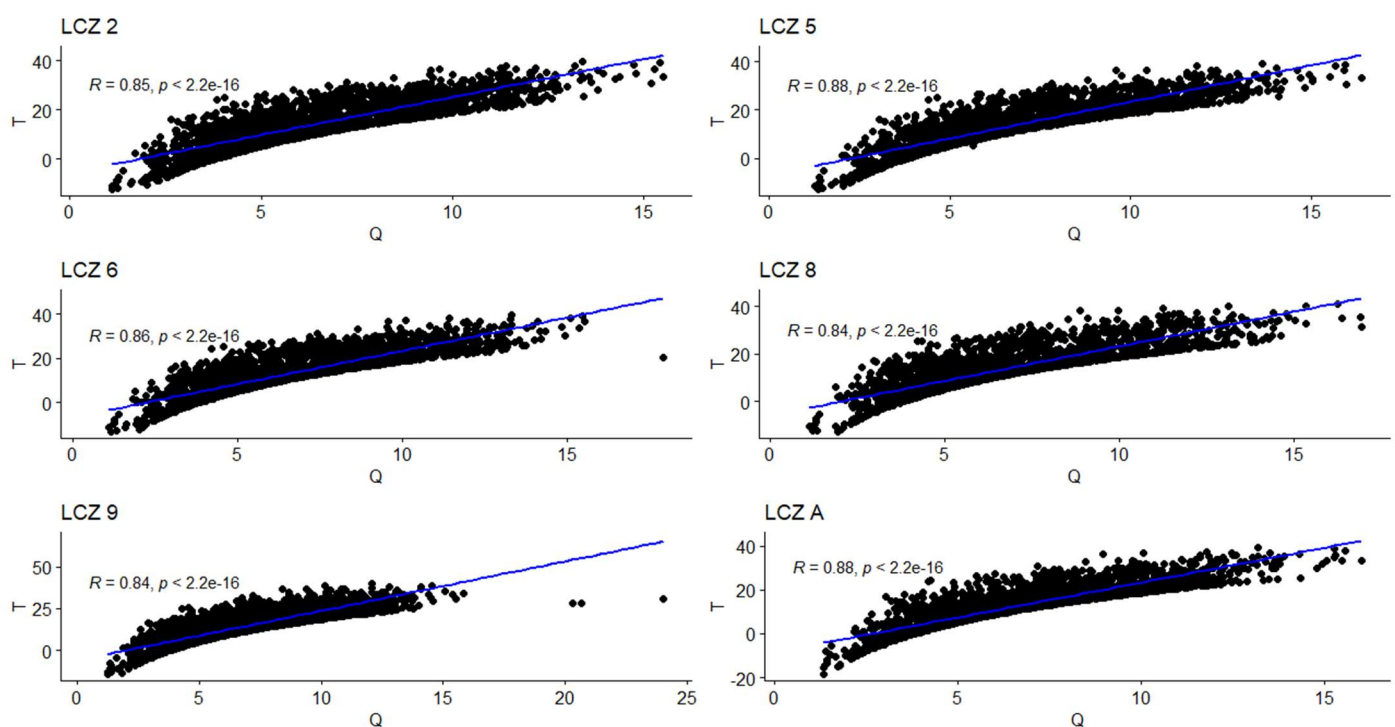


Figure S6. Relationship between air temperature T (°C) and specific humidity Q (g/kg) in LCZ 2 and LCZ A during the two-year period in Novi Sad. .