

**Table S1.** Seasonal minimum, maximum, mean and standard deviation in air and stream water temperature, precipitation, discharge and nutrient concentrations 2001-2020.

Season	Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Winter (XII - II)	Average air temperature (C°)	19	-10.5	0.0	-5.1	2.8
	Average water temperature (C°)	19	-0.1	1.72	0.9	0.47
	Precipitation (mm)	19	0.63	2.37	1.6	0.49
	Stream discharge (m <sup>3</sup> s <sup>-1</sup> )	19	0.01	0.11	0.05	0.03
	NO <sub>3</sub> -N (μg l <sup>-1</sup> )	19	1288	4321	2614	729
	NH <sub>4</sub> -N (μg l <sup>-1</sup> )	19	73	379	132	73
	Tot-N (μg l <sup>-1</sup> )	19	1735	4982	3189	852
	ON (μg l <sup>-1</sup> )	19	105	1070	442	227
	PO <sub>4</sub> -P (μg l <sup>-1</sup> )	19	3.4	37.0	10.6	9.0
	Tot-P (μg l <sup>-1</sup> )	19	18.9	75.3	34.4	15.3
	OP (μg l <sup>-1</sup> )	19	14.8	38.7	23.8	7.3
	DOC (mg l <sup>-1</sup> )	19	3.8	11.9	7.4	2.2
Spring (III - V)	Average air temperature (C°)	20	1.72	5.52	3.9	1.07
	Average water temperature (C°)	20	2.69	5.92	4.2	0.84
	Precipitation (mm)	20	0.73	1.91	1.2	0.30
	Stream discharge (m <sup>3</sup> s <sup>-1</sup> )	20	0.04	0.10	0.07	0.01
	NO <sub>3</sub> -N (μg l <sup>-1</sup> )	20	1820	3852	2571	580
	NH <sub>4</sub> -N (μg l <sup>-1</sup> )	20	101	495	166	99
	Tot-N (μg l <sup>-1</sup> )	20	2509	4723	3301	615
	ON (μg l <sup>-1</sup> )	20	259	1275	545	242
	PO <sub>4</sub> -P (μg l <sup>-1</sup> )	20	5.7	39.1	13.7	8.9
	Tot-P (μg l <sup>-1</sup> )	20	33.7	81.0	49.8	14.3
	OP (μg l <sup>-1</sup> )	20	15.3	52.4	35.2	8.4
	DOC (mg l <sup>-1</sup> )	20	7.5	13.1	9.5	1.2
Summer (VI - VIII)	Average air temperature (C°)	19	13.85	17.05	15.6	1.03
	Average water temperature (C°)	19	9.31	16.81	13.6	1.65
	Precipitation (mm)	19	1.32	4.49	2.3	0.72
	Stream discharge (m <sup>3</sup> s <sup>-1</sup> )	19	0.02	0.08	0.03	0.01
	NO <sub>3</sub> -N (μg l <sup>-1</sup> )	19	830	2541	1716	415
	NH <sub>4</sub> -N (μg l <sup>-1</sup> )	19	25	215	73	52
	Tot-N (μg l <sup>-1</sup> )	19	1099	3534	2253	541
	ON (μg l <sup>-1</sup> )	19	211	884	463	181
	PO <sub>4</sub> -P (μg l <sup>-1</sup> )	19	4.6	35.5	11.2	7.3
	Tot-P (μg l <sup>-1</sup> )	19	24.0	91.5	41.7	16.0
	OP (μg l <sup>-1</sup> )	19	19.4	56.1	30.4	10.3
	DOC (mg l <sup>-1</sup> )	19	6.4	14.9	9.2	2.4
Autumn (IX - XI)	Average air temperature (C°)	19	1.56	7.12	5.2	1.28
	Average water temperature (C°)	19	4.00	7.61	6.3	0.86
	Precipitation (mm)	19	1.16	3.13	2.0	0.65
	Stream discharge (m <sup>3</sup> s <sup>-1</sup> )	19	0.02	0.10	0.05	0.02
	NO <sub>3</sub> -N (μg l <sup>-1</sup> )	19	1137	3758	2090	534
	NH <sub>4</sub> -N (μg l <sup>-1</sup> )	19	33	263	94	61
	Tot-N (μg l <sup>-1</sup> )	19	1703	4615	2671	663
	ON (μg l <sup>-1</sup> )	19	172	848	486	219
	PO <sub>4</sub> -P (μg l <sup>-1</sup> )	19	4.5	45.8	11.5	11.4
	Tot-P (μg l <sup>-1</sup> )	19	22.7	84.6	34.7	17.5
	OP (μg l <sup>-1</sup> )	19	14.9	38.8	23.1	7.3
	DOC (mg l <sup>-1</sup> )	19	4.8	16.1	9.6	3.2