

1 Supplement to

2 **Deforestation for agriculture leads to soil warming and**
 3 **enhanced litter decomposition in subarctic soils**

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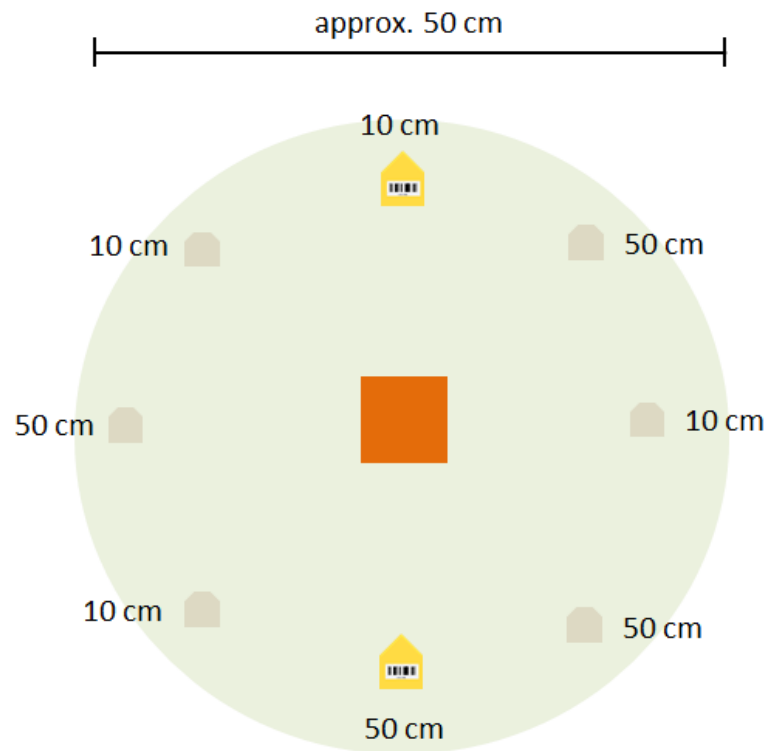
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8 *Table S 1: Tea mass loss, annual mean temperature, temperature amplitude and cumulative degree days per site, land-use*
 9 *type and depth.*

Site	Land-use	Date of burial	Date of removal	Depth [cm]	Tea bags recovered	Mean tea loss [%]	Annual mean temperature [°C]	Temperature amplitude	Cumulative degree days
CD	Forest	13.06.2019	01.10.2021	10	3	73.1 ± 3.8	0.33	45.69	1643
				50	3	62.6 ± 4.3	0.53	27.11	1216
	Cropland	13.06.2019	01.10.2021	10	3	61.3 ± 6.6	1.15	50.01	2013
				50	3	53.5 ± 4.4	1.33	32.80	1711
	Grassland	13.06.2019	01.10.2021	10	3	68.7 ± 2.1	1.67	47.46	1982
				50	3	53.7 ± 5.8	1.57	30.49	1626
DR	Forest	28.06.2019	19.09.2021	10	3	65.7 ± 4.2	0.55	17.73	763
				50	3	55.9 ± 3.7	0.73	8.620	444
	Grassland	28.06.2019	19.09.2021	10	3	67.4 ± 4.4	3.55	26.93	1727
				50	3	54.1 ± 0.4	3.24	17.43	1387
EF	Forest	14.06.2019	27.09.2019	10	3	66.0 ± 7.0	1.66	27.84	1200
				50	3	51.1 ± 0.7	1.51	15.50	851
	Cropland	14.06.2019	30.09.2021	10	3	82.6 ± 6.6	3.35	29.08	1625
				50	3	67.1 ± 5.5	3.02	18.62	1277
	Grassland	14.06.2019	30.09.2021	10	3	59.1 ± 2.9	2.65	34.54	1665
				50	3	45.4 ± 1.1	2.66	16.99	1183
EG	Forest	11.06.2019	27.09.2019	10	2	73.3 ± 5.0	-0.66	44.42	1298
				50	3	86.1 ± 1.8	1.13	28.62	337
	Grassland	11.06.2019	27.09.2019	10	2	76.6 ± 3.1	3.04	43.79	1973
				50	3	73.5 ± 3.6	2.87	31.48	1666
GV	Forest	21.06.2019	30.09.2021	10	3	64.6 ± 2.8	1.52	24.80	1106
				50	3	51.7 ± 2.8	1.75	13.43	881

	Cropland	21.06.2019	30.09.2021	10	2	55.8 ± 4.3	1.99	41.48	1650
				50	3	47.8 ± 5.7	2.46	21.36	1327
	Grassland	21.06.2019	30.09.2021	10	3	70.1 ± 1.3	3.22	32.01	1680
				50	3	48.8 ± 3.6	3.22	19.42	1466
KK	Forest	26.06.2019	16.09.2019	10	2	69.9 ± 1.9	-1.08	27.38	962
				50	2	55.6 ± 2.8	-0.96	19.14	682
	Cropland	26.06.2019	16.09.2019	10	3	75.4 ± 1.7	3.09	34.56	1927
				50	2	73.0 ± 1.9	2.69	23.63	1584
KL	Forest	27.06.2019	20.09.2021	10	3	64.3 ± 1.5	0.21	14.91	479
				50	3	55.7 ± 2.7	-0.24	3.788	69
	Cropland	27.06.2019	20.09.2021	10	3	76.2 ± 3.9	1.89	34.66	1633
				50	3	63.2 ± 7.8	1.08	23.66	1187
LR	Forest	12.06.2019	28.09.2021	10	2	74.2 ± 0.4	1.13	28.12	1190
				50	3	47.3 ± 1.4	1.15	15.51	885
	Cropland (older)	12.06.2019	28.09.2021	10	3	77.1 ± 10.3	2.86	30.53	1643
				50	3	56.4 ± 1.0	3.04	15.92	1303
	Cropland (younger)	12.06.2019	28.09.2021	10	3	81.3 ± 4.6	3.29	40.50	1998
				50	2	72.4 ± 0.1	3.02	20.14	1515
MG	Forest	17.06.2019	24.09.2021	10	3	69.1 ± 3.6	1.28	18.52	814
				50	3	50.3 ± 0.9	1.01	10.50	527
	Cropland	17.06.2019	24.09.2021	10	3	74.2 ± 6.1	3.76	31.49	1777
				50	2	61.1 ± 1.9	3.42	20.25	1411
	Grassland	17.06.2019	24.09.2021	10	3	67.2 ± 3.9	2.86	25.12	1323
				50	2	17.6 ± 3.3	2.53	17.40	1094
NB	Forest	24.06.2019	21.09.2021	10	3	70.2 ± 3.4	1.79	22.13	1145
				50	3	57.7 ± 4.5	1.81	12.13	885
	Grassland	24.06.2019	21.09.2021	10	2	59.3 ± 3.9	3.85	20.99	1506
				50	3	48.0 ± 6.5	3.69	14.53	1358
PC	Forest	23.06.2019	23.09.2021	10	2	74.6 ± 7.8	-1.68	36.93	1255
				50	3	70.6 ± 1.9	-0.90	20.10	723
	Grassland	23.06.2019	23.09.2021	10	3	76.1 ± 4.4	1.22	47.31	2174
				50	3	80.8 ± 2.1	1.40	31.95	1785
RC	Forest	14.07.2019	25.09.2021	10	3	60.1 ± 1.6	0.70	21.11	856
				50	3	49.2 ± 1.2	0.30	10.55	430
	Cropland	14.07.2019	25.09.2021	10	3	72.8 ± 4.8	3.52	34.27	1805
				50	3	60.8 ± 2.7	2.81	17.75	1289
RF	Forest	18.06.2019	29.09.2021	10	3	84.9 ± 3.7	1.25	27.07	1022
				50	3	52.7 ± 4.8	1.20	14.16	680
	Cropland	18.06.2019	29.09.2021	10	3	72.4 ± 1.0	3.95	45.11	1916
				50	3	67.0 ± 8.9	3.79	22.91	1562
SI	Forest	05.07.2019	18.09.2021	10	3	70.2 ± 5.0	0.16	21.65	890
				50	3	48.0 ± 6.5	-0.23	10.85	365
	Cropland	05.07.2019	18.09.2021	10	3	73.2 ± 2.9	1.94	30.85	1560
				50	3	54.1 ± 2.3	2.23	18.30	1307
TH	Forest	30.06.2019	17.09.2021	10	3	70.3 ± 4.5	1.46	17.28	962
				50	3	52.7 ± 0.4	0.97	6.957	412

	Cropland	30.06.2019	18.09.2021	10	2	69.1 ± 0.1	3.83	24.74	1604
				50	3	57.4 ± 1.1	3.32	14.81	1248
	Grassland	06.07.2019	17.09.2021	10	3	59.5 ± 1.3	4.03	22.28	1607
				50	3	53.6 ± 0.5	3.50	14.42	1309



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11 *Figure S 1: Schematic sketch of the arrangement of the tea bags (grey hexagons) and temperature loggers (yellow*

12 *pentagons). The equipment was arranged in a circle and attached to a metal plate (orange)*