Table S1: Stand age characteristics of the Y4 Watershed.

Site	N	Mean Age (yr)	Std Err_Age	Min Age (yr)	Max Age (yr)	Median Age (yr)	Range (yr)
1	6	155.3	25.7	74	248	160.5	174
2	5	167.2	18.6	102	205	165	103
3	5	202.6	14.5	151	235	204	84
4	5	23.2	1.3	21	28	23	7
5	5	217.6	3.5	210	230	214	20
6	5	205.0	6.6	192	230	200	38
7	6	154.5	34.8	60	298	161.5	238
8	5	208.4	14.5	153	231	224	78
9	5	202.0	15.2	142	223	212	81
10	5	210.8	11.1	182	244	201	62
11	4	122.5	39.6	35	227	114	192
12	5	71.2	10.7	44	100	80	56
13	4	178.5	13.9	155	215	172	60
14	5	40.0	2.8	33	49	39	16
15	5	221.4	5.0	203	233	223	30
16	5	200.2	13.2	176	251	191	75
19	8	25.9	1.8	16	32	27	16

Table S2: Unaggregated soil characteristics and C density for sampling sites in the Y4 watershed.

Site	Transect	Meter	Organic/ Mineral	Core depth (cm)	Bulk Density (g/cm^3)	Gravimentric Water Content (%)	Volumetric Water Content (%)	Organic Content (%)	Mineral soil C normalized to 10 cm (gC/m^2)	Organic soil C normalized to 10 cm (gC/m^2)	Total soil C in top 10 cm (gC/m^2)	Root C in top 10 cm (gC/m^2)	Total belowground C normalized to 10 cm (gC/m^2)
1	1	0	O	12	0.03	233.75	6.20	42.08	-	1115.52	1115.52	289.14	1404.67
1	1	0	M	3	0.23	132.56	30.38	17.94	-	-	-	0.00	-
1	1	20	O	5	0.18	86.62	15.30	21.80	-	3850.71	3085.09	16.05	3101.14
1	1	20	M	16	1.27	28.66	36.28	1.83	2319.47	-	-	0.00	-
1	2	0	O	9	0.06	143.51	8.69	38.33	-	2322.43	2189.97	0.00	2189.97
1	2	0	M	16	0.55	26.60	14.65	1.81	997.85	-	-	0.00	-
1	2	20	O	9	0.05	253.52	12.00	44.25	-	2093.82	2115.50	345.45	2460.96
1	2	20	M	8	0.44	48.41	21.19	5.28	2310.59	-	-	0.00	-
1	3	0	O	6	0.08	158.67	12.85	34.24	-	2773.11	2307.59	33.77	2341.35
1	3	0	M	13	0.35	51.55	18.02	4.60	1609.30	-	-	0.00	-
1	3	20	O	6	0.08	317.28	24.51	44.69	-	3451.58	3245.90	135.00	3380.90
1	3	20	M	14	0.30	100.71	30.38	9.74	2937.37	-	-	0.00	-
2	1	0	O	8	0.09	110.44	9.91	20.20	-	1813.28	1591.00	368.18	1959.18
2	1	0	M	19	0.58	21.61	12.63	1.20	701.89	-	-	0.00	-
2	1	20	O	13	0.02	309.93	5.78	46.06	-	859.52	859.52	65.03	924.56
2	2	0	O	11	0.02	200.86	4.83	41.19	-	991.38	991.38	91.69	1083.07
2	2	0	M	12	0.74	26.89	19.78	1.67	1225.97	-	-	0.00	-
2	2	20	O	13	0.04	153.27	6.22	33.37	-	1353.06	1353.06	0.00	1353.06
2	2	20	M	11	0.58	39.51	22.81	3.92	2264.20	-	-	0.00	-
2	3	0	O	10	0.05	231.51	11.48	46.93	-	2326.95	2326.95	39.06	2366.01
2	3	0	M	8	0.54	53.90	28.89	3.20	1715.54	-	-	0.00	-
2	3	20	O	16	0.02	216.82	3.97	42.35	-	775.18	775.18	19.23	794.41
2	3	20	M	21	0.78	27.71	21.69	1.78	1396.82	-	-	0.00	-
3	1	0	O	10	0.07	86.81	5.94	28.28	-	1934.05	1934.05	25.00	1959.05
3	1	0	M	16	0.76	20.36	15.52	1.60	1216.38	-	-	0.00	-
3	1	20	O	11	0.04	94.27	3.51	24.22	-	902.30	902.30	34.09	936.39
3	1	20	M	9	0.39	43.69	16.95	4.26	1651.88	-	-	0.00	-

Site	Transect	Meter	Organic/ Mineral	Core depth (cm)	Bulk Density (g/cm^3)	Gravimentric Water Content (%)	Volumetric Water Content (%)	Organic Content (%)	Mineral soil C normalized to 10 cm (gC/m^2)	Organic soil C normalized to 10 cm (gC/m^2)	Total soil C in top 10 cm (gC/m^2)	Root C in top 10 cm (gC/m^2)	Total belowground C normalized to 10 cm (gC/m^2)
3	2	0	O	11	0.10	64.20	6.30	24.25	-	2377.69	2377.69	272.73	2650.41
3	2	0	M	12	1.04	22.93	23.92	1.78	1854.69	-	-	0.00	-
3	2	20	O	12	0.03	176.32	4.83	35.76	-	979.66	979.66	69.44	1049.10
3	3	0	O	10	0.06	117.35	6.91	35.24	-	2076.62	2076.62	159.09	2235.71
3	3	0	M	15	0.55	34.32	18.71	3.06	1669.01	-	-	0.00	-
3	3	20	O	9	0.08	80.83	6.81	34.53	-	2908.74	2695.86	90.28	2786.14
3	3	20	M	12	0.75	24.14	18.04	1.04	779.93	-	-	0.00	-
4	1	0	O	9	0.15	44.90	6.56	12.34	-	1802.92	1766.15	34.66	1800.80
4	1	0	M	15	0.85	17.48	14.90	1.68	1435.22	-	-	0.00	-
4	1	20	O	8	0.03	181.84	5.61	33.89	-	1045.95	1285.64	326.39	1612.03
4	1	20	M	6	0.48	43.50	20.87	4.68	2244.44	-	-	0.00	-
4	2	0	O	1	0.42	63.37	26.46	21.04	-	5189.46	5189.46	15.18	5204.64
4	2	0	O	7	0.23	30.54	6.99	20.92	-	-	-	0.00	-
4	2	20	O	10	0.02	131.04	2.40	36.42	-	667.20	667.20	15.00	682.20
4	3	0	O	8	0.05	192.37	8.93	34.80	-	1615.16	3046.86	625.00	3671.86
4	3	0	M	3	0.72	96.70	69.62	12.19	-	-	-	0.00	-
4	3	20	M	3	0.03	96.62	3.12	18.40	593.40	-	6247.64	0.00	6247.64
4	3	20	M	23	0.63	50.60	31.78	6.33	3973.63	-	-	0.00	-
5	1	0	O	7	0.16	162.18	26.12	29.83	-	4804.79	3700.31	677.78	4378.09
5	1	0	M	11	1.30	19.19	25.03	0.86	1123.20	-	-	0.00	-
5	1	20	O	12	0.07	283.58	21.26	49.08	-	3680.15	3680.15	221.35	3901.51
5	1	20	M	11	0.87	32.39	28.34	2.45	2140.44	-	-	0.00	-
5	2	0	O	6	0.07	236.58	17.20	42.15	-	3063.48	2402.43	191.36	2593.79
5	2	0	M	12	1.09	25.28	27.47	1.30	1410.86	-	-	0.00	-
5	2	20	O	10	0.06	171.99	10.60	37.55	-	2313.33	2313.33	966.67	3280.00
5	2	20	M	13	0.90	26.98	24.23	1.91	1710.52	-	-	0.00	-
5	3	20	O	5	0.23	246.90	56.16	37.36	-	8497.97	4982.97	210.23	5193.20
5	3	20	M	11	0.96	24.17	23.11	1.54	1467.98	-	-	0.00	-
6	1	0	O	10	0.05	213.81	9.78	44.42	-	2032.25	2032.25	22.50	2054.75

Site	Transect	Meter	Organic/ Mineral	Core depth (cm)	Bulk Density (g/cm^3)	Gravimentric Water Content (%)	Volumetric Water Content (%)	Organic Content (%)	Mineral soil C normalized to 10 cm (gC/m^2)	Organic soil C normalized to 10 cm (gC/m^2)	Total soil C in top 10 cm (gC/m^2)	Root C in top 10 cm (gC/m^2)	Total belowground C normalized to 10 cm (gC/m^2)
6	1	0	M	13	0.69	26.35	18.14	2.46	1691.94	-	-	0.00	-
6	1	20	O	6	0.07	202.10	15.01	38.76	-	2878.74	3024.15	30.16	3054.31
6	1	20	M	6	0.50	53.31	26.49	6.53	3242.27	-	-	0.00	-
6	2	0	O	9	0.11	172.40	18.86	36.79	-	4024.97	3936.77	436.51	4373.28
6	2	0	M	12	0.54	44.29	23.94	5.81	3143.00	-	-	0.00	-
6	2	20	O	9	0.30	87.62	26.38	25.67	-	7727.63	7137.53	694.44	7831.97
6	2	20	M	12	0.65	23.58	15.41	2.79	1826.62	-	-	0.00	-
6	3	0	O	9	0.11	207.21	22.26	42.95	-	4613.74	4270.06	182.81	4452.87
6	3	0	M	12	0.78	23.54	18.33	1.51	1176.94	-	-	0.00	-
6	3	20	O	13	0.04	209.06	8.60	45.23	-	1859.52	1859.52	13.43	1872.95
7	1	0	O	9	0.05	314.23	14.33	36.70	-	1674.09	1756.06	13.49	1769.55
7	1	0	M	9	1.04	31.95	33.33	2.39	2493.85	-	-	0.00	-
7	1	20	O	14	0.02	368.98	5.58	48.42	-	732.86	732.86	19.02	751.88
7	2	0	O	12	0.02	569.81	8.84	47.53	-	737.79	737.79	0.00	737.79
7	2	20	O	11	0.02	270.24	4.82	40.03	-	714.11	714.11	56.25	770.36
7	2	20	M	20	1.08	21.73	23.53	1.27	1378.38	-	-	0.00	-
7	3	0	O	10	0.03	335.80	10.19	46.86	-	1422.28	1422.28	36.93	1459.22
7	3	0	M	15	0.53	53.75	28.37	5.77	3043.40	-	-	0.00	-
7	3	20	O	11	0.03	232.12	7.49	46.61	-	1503.07	1503.07	136.36	1639.44
7	3	20	M	7	0.37	66.83	24.66	6.28	2316.01	-	-	0.00	-
8	1	0	O	14	0.03	367.54	12.54	45.84	-	1564.36	1564.36	12.99	1577.35
8	1	20	O	12	0.02	427.69	9.98	47.25	-	1102.83	1102.83	54.40	1157.23
8	2	0	O	7	0.03	254.49	8.55	47.29	-	1589.23	2233.68	100.78	2334.46
8	2	0	M	15	0.70	52.52	37.00	5.30	3737.38	-	-	0.00	-
8	2	20	O	13	0.03	288.97	7.30	48.16	-	1217.26	1217.26	14.42	1231.68
8	2	20	M	16	0.49	60.26	29.77	5.55	2744.16	-	-	0.00	-
8	3	0	O	10	0.03	213.84	5.35	44.07	-	1103.54	1103.54	142.36	1245.90
8	3	20	O	9	0.02	276.90	5.46	47.47	-	935.20	1030.97	91.67	1122.63
8	3	20	M	16	0.84	26.36	22.02	2.27	1892.88	-	-	0.00	-

Site	Transect	Meter	Organic/ Mineral	Core depth (cm)	Bulk Density (g/cm^3)	Gravimentric Water Content (%)	Volumetric Water Content (%)	Organic Content (%)	Mineral soil C normalized to 10 cm (gC/m^2)	Organic soil C normalized to 10 cm (gC/m^2)	Total soil C in top 10 cm (gC/m^2)	Root C in top 10 cm (gC/m^2)	Total belowground C normalized to 10 cm (gC/m^2)
9	1	0	O	9	0.11	131.09	14.27	24.94	-	2713.94	2595.66	182.54	2778.20
9	1	0	M	11	0.55	28.95	15.82	2.80	1531.14	-	-	0.00	-
9	1	20	M	13	0.11	107.77	12.28	15.92	1814.75	-	1814.75	300.48	2115.23
9	1	20	M	12	0.65	26.46	17.28	2.11	1379.66	-	-	0.00	-
9	2	0	O	7	0.07	203.28	13.96	40.56	-	2785.95	2188.87	34.82	2223.70
9	2	0	M	12	1.19	20.81	24.68	0.67	795.69	-	-	0.00	-
9	2	20	O	16	0.07	112.88	7.71	21.92	-	1497.73	1497.73	275.30	1773.03
9	2	20	M	11	0.60	30.30	18.33	1.81	1094.45	-	-	0.00	-
9	3	0	O	15	0.08	237.82	19.92	36.20	-	3031.95	3031.95	214.76	3246.71
9	3	0	M	1	0.75	72.56	54.24	7.30	-	-	-	0.00	-
9	3	20	M	12	0.26	63.72	16.86	12.54	3319.05	-	3319.05	57.82	3376.87
9	3	20	M	13	1.00	21.18	21.19	0.85	851.32	-	-	0.00	-
10	1	0	O	13	0.05	264.41	13.32	46.41	-	2338.70	2338.70	197.72	2536.41
10	1	0	M	15	0.91	23.21	21.21	0.92	842.30	-	-	0.00	-
10	1	20	O	13	0.08	264.24	21.04	46.36	-	3691.30	3691.30	496.57	4187.86
10	1	20	M	11	0.85	28.62	24.45	1.83	1564.70	-	-	0.00	-
10	2	0	O	15	0.04	260.99	9.28	47.54	-	1691.13	1691.13	488.64	2179.76
10	2	20	O	14	0.04	346.29	13.90	44.72	-	1794.95	1794.95	25.79	1820.74
10	2	20	M	12	0.97	22.63	21.87	1.29	1250.53	-	-	0.00	-
10	3	0	O	18	0.03	258.82	8.62	35.06	-	1167.76	1167.76	45.14	1212.90
10	3	0	M	15	0.97	26.02	25.21	1.82	1766.31	-	-	0.00	-
10	3	20	O	8	0.05	240.66	11.88	41.34	-	2040.97	1908.54	416.67	2325.20
10	3	20	M	13	0.72	32.01	23.14	1.91	1378.82	-	-	0.00	-
11	1	0	O	10	0.03	161.28	5.62	25.25	-	880.25	880.25	531.25	1411.50
11	1	0	M	20	1.04	23.66	24.58	1.16	1206.67	-	-	0.00	-
11	1	20	O	10	0.15	121.98	18.41	24.15	-	3645.47	3645.47	152.68	3798.14
11	1	20	M	5	1.15	41.58	47.70	3.06	3505.23	-	-	0.00	-
11	2	0	O	12	0.04	112.50	4.49	34.02	-	1356.68	1356.68	443.45	1800.14
11	2	0	M	15	0.84	34.92	29.38	2.13	1790.33	-	-	0.00	-

Site	Transect	Meter	Organic/ Mineral	Core depth (cm)	Bulk Density (g/cm^3)	Gravimentric Water Content (%)	Volumetric Water Content (%)	Organic Content (%)	Mineral soil C normalized to 10 cm (gC/m^2)	Organic soil C normalized to 10 cm (gC/m^2)	Total soil C in top 10 cm (gC/m^2)	Root C in top 10 cm (gC/m^2)	Total belowground C normalized to 10 cm (gC/m^2)
11	2	20	O	12	0.05	113.57	6.01	27.32	-	1445.53	1445.53	122.92	1568.44
11	2	20	M	18	0.96	33.13	31.70	2.19	2095.13	-	-	0.00	-
11	3	0	O	10	0.02	204.57	3.94	41.94	-	808.23	808.23	1350.00	2158.23
11	3	0	M	15	0.71	38.76	27.61	3.35	2387.25	-	-	0.00	-
11	3	20	M	7	0.18	78.24	13.79	12.81	2257.14	-	1840.86	38.89	1879.75
11	3	20	M	20	1.02	25.42	25.81	0.86	869.54	-	-	0.00	-
12	1	0	O	3	0.15	257.88	39.31	48.05	-	-	-	571.43	571.43
12	1	20	O	9	0.03	280.58	8.32	44.65	-	1323.49	1632.01	316.67	1948.68
12	1	20	M	7	0.97	49.93	48.24	4.56	4408.70	-	-	0.00	-
12	2	0	O	12	0.04	203.29	7.34	39.11	-	1411.74	1411.74	130.95	1542.69
12	2	20	O	7	0.03	227.96	7.84	43.54	-	1498.39	1531.38	262.50	1793.88
12	2	20	M	20	0.64	35.14	22.36	2.53	1608.35	-	-	0.00	-
12	3	0	O	9	0.03	310.20	10.04	47.75	-	1545.48	1786.51	72.66	1859.17
12	3	0	M	7	0.52	85.71	44.73	7.58	3955.82	-	-	0.00	-
12	3	20	O	13	0.03	206.02	6.41	37.77	-	1174.80	1174.80	271.85	1446.65
12	3	20	M	6	0.57	62.30	35.70	5.37	3075.20	-	-	0.00	-
13	1	0	O	13	0.06	245.93	14.06	37.65	-	2152.74	2152.74	309.07	2461.81
13	1	0	M	11	0.85	35.13	29.87	2.60	2209.39	-	-	0.00	-
13	1	20	O	12	0.04	222.36	9.81	40.26	-	1776.95	1776.95	324.07	2101.03
13	2	0	O	7	0.03	200.30	5.68	37.82	-	1072.86	1165.77	26.79	1192.55
13	2	0	M	14	0.38	45.11	17.20	3.62	1382.55	-	-	0.00	-
13	2	20	O	19	0.07	192.52	14.21	36.72	-	2710.91	2710.91	513.98	3224.89
13	3	0	O	12	0.02	153.83	2.75	41.21	-	737.84	737.84	301.28	1039.12
13	3	0	M	4	0.77	85.18	65.55	6.93	-	-	-	0.00	-
13	3	20	O	11	0.03	149.39	4.57	46.36	-	1419.54	1419.54	125.00	1544.54
13	3	20	M	14	0.82	29.18	24.01	2.79	2297.12	-	-	0.00	-
14	1	0	M	2	0.59	74.03	43.96	12.86	2360.62	-	2360.62	40.48	2401.09
14	1	0	M	12	0.53	28.22	14.94	1.97	1041.35	-	-	0.00	-
14	1	20	O	6	0.14	193.24	26.94	29.58	-	4124.70	3028.38	221.43	3249.81

Site	Transect	Meter	Organic/ Mineral	Core depth (cm)	Bulk Density (g/cm^3)	Gravimentric Water Content (%)	Volumetric Water Content (%)	Organic Content (%)	Mineral soil C normalized to 10 cm (gC/m^2)	Organic soil C normalized to 10 cm (gC/m^2)	Total soil C in top 10 cm (gC/m^2)	Root C in top 10 cm (gC/m^2)	Total belowground C normalized to 10 cm (gC/m^2)
14	1	20	M	12	0.98	26.41	25.91	1.41	1383.89	-	-	0.00	-
14	2	0	O	12	0.05	184.24	8.71	46.55	-	2199.92	2199.92	640.43	2840.35
14	2	0	M	16	0.58	22.00	12.78	1.18	682.51	-	-	0.00	-
14	2	20	O	11	0.12	163.82	19.56	23.65	-	2823.44	2823.44	130.47	2953.91
14	2	20	M	16	0.78	24.25	18.80	1.07	828.44	-	-	0.00	-
14	3	0	O	11	0.12	110.40	13.57	30.58	-	3759.40	3759.40	268.40	4027.80
14	3	0	M	13	1.24	21.83	26.97	1.29	1593.17	-	-	0.00	-
14	3	20	O	7	0.09	177.08	15.14	31.49	-	2692.09	2276.35	0.00	2276.35
14	3	20	M	12	1.04	20.58	21.46	1.25	1306.28	-	-	0.00	-
15	1	0	O	10	0.08	209.21	17.78	32.36	-	2750.03	2750.03	86.61	2836.64
15	1	0	M	13	1.18	24.27	28.75	1.19	1408.99	-	-	0.00	-
15	1	20	O	12	0.03	573.51	18.22	43.49	-	1381.76	1381.76	85.70	1467.46
15	1	20	M	14	0.71	67.99	48.06	4.99	3523.99	-	-	0.00	-
15	2	0	O	9	0.03	364.38	11.92	41.53	-	1358.17	1489.31	216.88	1706.19
15	2	0	M	12	0.86	44.33	38.08	3.11	2669.57	-	-	0.00	-
15	2	20	O	19	0.01	983.16	14.68	46.85	-	699.63	699.63	13.16	712.79
15	3	0	O	6	0.11	287.04	32.96	38.43	-	4412.45	3045.02	78.91	3123.92
15	3	0	M	20	0.91	22.99	21.03	1.09	993.87	-	-	0.00	-
15	3	20	O	16	0.04	322.31	11.88	45.14	-	1664.32	1664.32	236.55	1900.86
15	3	20	O	2	0.74	193.79	142.64	20.59	-	-	-	0.00	-
16	1	0	O	9	0.04	339.75	12.13	47.43	-	1693.60	1827.47	150.79	1978.26
16	1	0	M	10	0.92	45.19	41.55	3.30	3032.31	-	-	0.00	-
16	1	20	O	17	0.05	287.12	13.10	39.31	-	1793.18	1793.18	63.84	1857.02
16	2	0	M	10	0.07	109.78	8.12	19.27	1424.84	-	1424.84	98.15	1522.99
16	2	0	M	17	1.03	22.64	23.32	1.25	1291.91	-	-	0.00	-
16	2	20	O	9	0.07	114.35	8.43	40.32	-	2971.54	2852.92	629.63	3482.55
16	2	20	M	14	1.06	24.85	26.47	1.68	1785.33	-	-	0.00	-
16	3	0	O	16	0.03	241.35	6.84	39.56	-	1120.33	1120.33	78.99	1199.32
16	3	0	M	19	0.73	44.86	32.61	3.96	2875.10	-	-	0.00	-

Site	Transect	Meter	Organic/ Mineral	Core depth (cm)	Bulk Density (g/cm^3)	Gravimentric Water Content (%)	Volumetric Water Content (%)	Organic Content (%)	Mineral soil C normalized to 10 cm (gC/m^2)	Organic soil C normalized to 10 cm (gC/m^2)	Total soil C in top 10 cm (gC/m^2)	Root C in top 10 cm (gC/m^2)	Total belowground C normalized to 10 cm (gC/m^2)
16	3	20	O	18	0.03	298.82	8.15	34.35	-	936.33	936.33	23.61	959.95
17	1	0	M	10	0.34	41.28	14.14	5.01	1714.32	-	1714.32	0.00	1714.32
17	1	20	M	12	0.15	73.22	10.67	15.39	2241.83	-	2241.83	171.88	2413.71
17	1	20	M	10	0.81	31.95	25.95	2.98	2417.59	-	-	0.00	-
17	3	0	M	10	0.18	78.56	14.07	19.77	3540.76	-	3540.76	110.87	3651.63
17	3	0	M	10	0.75	32.79	24.57	2.65	1986.82	-	-	0.00	-
17	3	20	M	9.5	0.27	63.02	16.99	13.63	3675.89	-	3542.74	399.33	3942.08
17	3	20	M	10	0.73	35.34	25.67	1.39	1013.05	-	-	0.00	-
18	1	0	M	19	0.03	207.62	6.93	15.12	504.59	-	504.59	14.09	518.67
18	1	0	M	25	0.08	115.76	9.56	4.81	396.85	-	-	0.00	-
18	1	20	O	17	0.03	510.09	15.12	45.98	-	1362.71	1362.71	136.37	1499.08
18	2	0	O	12	0.07	294.74	19.28	40.12	-	2624.54	2624.54	141.79	2766.34
18	2	0	M	5	0.56	112.30	63.19	10.76	6054.86	-	-	0.00	-
18	2	20	O	18	0.03	371.39	11.60	46.82	-	1462.09	1462.09	138.74	1600.83
18	2	20	M	10	0.86	57.07	49.36	4.25	3672.67	-	-	0.00	-
18	3	0	O	19	0.08	310.63	23.83	38.18	-	2929.66	2929.66	22.26	2951.92
18	3	20	O	23	0.09	247.08	22.27	28.31	-	2551.81	2551.81	36.28	2588.09
19	1	0	M	14	0.08	130.95	10.92	18.13	1512.07	-	1512.07	609.67	2121.73
19	1	0	M	1	1.13	35.63	40.27	2.24	-	-	-	0.00	-
19	2	0	O	10	0.12	329.55	38.36	34.25	-	3987.02	3987.02	296.30	4283.31
19	2	0	M	6	0.75	61.83	46.10	5.33	3973.73	-	-	0.00	-
19	3	0	O	13.5	0.12	176.34	21.00	25.54	-	3041.30	3041.30	114.38	3155.68
20	1	1	M	12	1.31	23.32	30.47	1.15	1504.53	-	1504.53	0.00	1504.53
20	1	NA	O	10	0.10	52.39	5.18	29.97	-	2961.38	2961.38	0.00	2961.38
20	2	2	M	10	1.22	21.48	26.13	0.66	800.07	-	800.07	0.00	800.07
20	2	NA	O	7	0.03	243.29	6.11	42.07	-	1055.94	1055.94	0.00	1055.94
20	3	1	M	22	1.61	22.88	36.74	1.09	1747.70	-	1747.70	0.00	1747.70
20	3	2	M	11	1.45	23.33	33.88	1.08	1573.50	-	1573.50	0.00	1573.50
20	3	NA	O	9	0.12	233.41	29.01	26.65	-	3312.77	3312.77	0.00	3312.77

Site	Transect	Meter	Organic/ Mineral	Core depth (cm)	Bulk Density (g/cm^3)	Gravimentric Water Content (%)	Volumetric Water Content (%)	Organic Content (%)	Mineral soil C normalized to 10 cm (gC/m^2)	Organic soil C normalized to 10 cm (gC/m^2)	Total soil C in top 10 cm (gC/m^2)	Root C in top 10 cm (gC/m^2)	Total belowground C normalized to 10 cm (gC/m^2)
20	4	NA	O	NA	0.06	290.50	18.35	35.31	-	-	-	0.00	-

Table S3: Paramter values and standard errors of the soil carbon and thaw depth mixed effects models. Both soil carbon and thaw depth were log transformed. Moisture is gravimetric water content and in the top 10 cm of soil.

Model	Coefficient			
Soil Carbon	Intercept	Percent Moss	Percent Lichen	Moisture
	7.49 (0.16)	-0.0099 (0.0037)	-0.0076 (0.0034	0.026 (0.0065)
Thaw Depth	Intercept	Stand Age		
	3.72 (0.1)	-0.0029 (0.0006)		