Supplement of Biogeosciences, 14, 2481–2494, 2017
http://www.biogeosciences.net/14/2481/2017/
doi:10.5194/bg-14-2481-2017-supplement

Biogeosciences Open Access EGU

Supplement of

Long-term carbon and nitrogen dynamics at SPRUCE revealed through stable isotopes in peat profiles

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Table S1. The supplement related to this article is available online at http://dx.doi.org/10.3334/CDIAC/spruce.025

Hofmockel, K.S., Chen, J. and Hobbie, E.A. 2016. SPRUCE S1 Bog Pretreatment Fungal Hyphae Carbon and Nitrogen C Isotope Composition from In-growth Cores, 2013-2014. Carbon Dioxide Information Analysis Center, Oak Ridge Nation Tennessee, USA. DOI: 10.3334/CDIAC/spruce.025

Sample Name[1]	Installation date	Harvest date	Incubation time (months)	Location[2]
L1 C10 Hi 0-10	6/5/2013	9/20/2013	3.5	L1
L1 C10 Hi 10-20	6/5/2013	9/20/2013	3.5	L1
L1 C5 Hi 20-30	6/5/2013	9/20/2013	3.5	L1
L1 C5 Lo 0-10	6/5/2013	9/20/2013	3.5	L1
L1 Lo 10-20	6/5/2013	9/20/2013	3.5	L1
L2 C9 Hi 0-10	6/5/2013	9/20/2013	3.5	L2
L2 C9 Hi 10-20	6/5/2013	9/20/2013	3.5	L2
L2 C9 Hi 20-30	6/5/2013	9/20/2013	3.5	L2
L2 C3 Lo 0-10	6/5/2013	9/20/2013	3.5	L2
L2 C3 Lo10-20	6/5/2013	9/20/2013	3.5	L2
L3 C11 Hi 0-10	6/5/2013	9/20/2013	3.5	L3
L3 C11 Hi 10-20	6/5/2013	9/20/2013	3.5	L3
L3 C11 Hi 20-30	6/5/2013	9/20/2013	3.5	L3
L3 C2 Lo 0-10	6/5/2013	9/20/2013	3.5	L3
L3 C2 Lo 10-20	6/5/2013	9/20/2013	3.5	L3
L4 C8 Hi 0-10	6/5/2013	9/20/2013	3.5	L4
L4 C8 Hi 10-20	6/5/2013	9/20/2013	3.5	L4
L4 C8 Hi 20-30	6/5/2013	9/20/2013	3.5	L4
L4 C1 Lo 0-10	6/5/2013	9/20/2013	3.5	L4
L4 C1 Lo 10-20	6/5/2013	9/20/2013	3.5	L4
L5 C7 Hi 0-10	6/5/2013	9/20/2013	3.5	L5
L5 C7 Hi 10-20	6/5/2013	9/20/2013	3.5	L5
L5 C7 Hi 20-30	6/5/2013	9/20/2013	3.5	L5
L5 C4 Lo 0-10	6/5/2013	9/20/2013	3.5	L5
L5 C4 Lo 10-20	6/5/2013	9/20/2013	3.5	L5
L6 C12 Hi 0-10	6/5/2013	9/20/2013	3.5	L6
L6 C12 Hi 10-20	6/5/2013	9/20/2013	3.5	L6
L6 C12 Hi 20-30	6/5/2013	9/20/2013	3.5	L6
L6 C6 Lo 0-10	6/5/2013	9/20/2013	3.5	L6
L6 C6 Lo 10-20	6/5/2013	9/20/2013	3.5	L6
L1 Hi 0-10	9/20/2013	6/18/2014	9.0	L1
L1 Hi 10-20	9/20/2013	6/18/2014	9.0	L1
L1 Hi 20-30	9/20/2013	6/18/2014	9.0	L1
L1 Lo 0-10	9/20/2013	6/18/2014	9.0	L1
L1Lo10-20	9/20/2013	6/18/2014	9.0	L1
L2 Hi 0-10	9/20/2013	6/18/2014	9.0	L2
L2 Hi 10-20	9/20/2013	6/18/2014	9.0	L2
L2 Hi 20-30	9/20/2013	6/18/2014	9.0	L2
L2 Lo 0-10	9/20/2013	6/18/2014	9.0	L2
L2 Lo 10-20	12/11/2013	9/9/2014	9.0	L2
L3 Hi 0-10	9/20/2013	6/18/2014	9.0	L3
L3 Hi 10-20	9/20/2013	6/18/2014	9.0	L3
L3 Hi 20-30	9/20/2013	6/18/2014	9.0	L3
L3 Lo 0-10	9/20/2013	6/18/2014	9.0	L3

L3 Lo 10-20	9/20/2013	6/18/2014	9.0	L3
L4 Hi 0-10	9/20/2013	6/18/2014	9.0	L4
L4 Hi 10-20	9/20/2013	6/18/2014	9.0	L4
L4 Hi 20-30	9/20/2013	6/18/2014	9.0	L4
L4 Lo 0-10	9/20/2013	6/18/2014	9.0	L4
L4 Lo 10-20	9/20/2013	6/18/2014	9.0	L4
L5 Hi 0-10	9/20/2013	6/18/2014	9.0	L5
L5 Hi 10-20	9/20/2013	6/18/2014	9.0	L5
L5 Hi 20-30	9/20/2013	6/18/2014	9.0	L5
L5 Lo 0-10	9/20/2013	6/18/2014	9.0	L5
L5 Lo 10-20	9/20/2013	6/18/2014	9.0	L5
L6 Hi 0-10	9/20/2013	6/18/2014	9.0	L6
L6 Hi 10-20	9/20/2013	6/18/2014	9.0	L6
L6 Hi 20-30	9/20/2013	6/18/2014	9.0	L6
L6 Lo 0-10	9/20/2013	6/18/2014	9.0	L6
L6 Lo 10-20	9/20/2013	6/18/2014	9.0	L6
L1 Hi0-10	12/11/2013	9/9/2014	9.0	L1
L1 Hi10-20	12/11/2013	9/9/2014	9.0	L1
L1 Hi20-30	12/11/2013	9/9/2014	9.0	L1
L1 Lo0-10	12/11/2013	9/9/2014	9.0	L1
L1 Lo10-20	12/11/2013	9/9/2014	9.0	L1
L2 Hi 0-10	12/11/2013	9/9/2014	9.0	L2
L2 Hi 10-20	12/11/2013	9/9/2014	9.0	L2
L2 Hi 20-30	12/11/2013	9/9/2014	9.0	L2
L2 Lo 0-10	12/11/2013	9/9/2014	9.0	L2
L2 Lo 10-20	12/11/2013	9/9/2014	9.0	L2
L3 Hi 0-10	12/11/2013	9/9/2014	9.0	L3
L3 Hi 10-20	12/11/2013	9/9/2014	9.0	L3
L3 Hi 20-30	12/11/2013	9/9/2014	9.0	L3
L3 Lo 0-10	12/11/2013	9/9/2014	9.0	L3
L3 Lo 10-20	12/11/2013	9/9/2014	9.0	L3
L4 Hi 0-10	12/11/2013	9/9/2014	9.0	L4
L4 Hi 10-20	12/11/2013	9/9/2014	9.0	L4
L4 Hi 20-30	12/11/2013	9/9/2014	9.0	L4
L4 Lo 0-10	12/11/2013	9/9/2014	9.0	L4
L4 Lo 10-20	12/11/2013	9/9/2014	9.0	L4
L5 Hi 0-10	12/11/2013	9/9/2014	9.0	L5
L5 Hi 10-20	12/11/2013	9/9/2014	9.0	L5
L5 Hi 20-30	12/11/2013	9/9/2014	9.0	L5
L5 Lo 10-20	12/11/2013	9/9/2014	9.0	L5
L5 Lo 20-30	12/11/2013	9/9/2014	9.0	L5
L6 Hi 0-10	12/11/2013	9/9/2014	9.0	L6
L6 Hi 10-20	12/11/2013	9/9/2014	9.0	L6
L6 Hi 20-30	12/11/2013	9/9/2014	9.0	L6
L6 Lo 0-10	12/11/2013	9/9/2014	9.0	L6
L6 Lo 10-20	12/11/2013	9/9/2014	9.0	L6

[1] Sample Name is a composite sample identifier that includes location, core number (not used for all samples), Hi or Lo (sample taken

[2] Location refers to the sample point where cores were incubated.

[3] Relative depth is a comparison of depth from hummock surface with hollow surface.

[4] Ampl28 and Ampl44 refer to the signal strength of the sample on the isotope ratio mass spectrometer, in millivolts.

nd = no data.

Concentrations and Stable
al Laboratory, Oak Ridge,

Topography	Relative Depth (cm)[3]	Average Depth (cm)	Harvest Month	Harvest Year	Analysis Number	Amount Analysed (mg)	d15N (o/oo)
Hummock	+10	5	September	2013	52853	11.024	-1.08
Hummock	-10	15	September	2013	nd	nd	nd
Hummock	-20	25	September	2013	52845	8.547	-0.01
Hollow	-10	-5	September	2013	nd	nd	nd
Hollow	-20	-15	September	2013	nd	nd	nd
Hummock	+10	5	September	2013	52852	8.029	-1.53
Hummock	-10	15	September	2013	52850	1.515	-0.05
Hummock	-20	25	September	2013	nd	nd	nd
Hollow	-10	-5	September	2013	52847	5.005	-0.44
Hollow	-20	-15	September	2013	nd	nd	nd
Hummock	+10	5	September	2013	52846	9.822	-2.25
Hummock	-10	15	September	2013	52849	7.958	-1.45
Hummock	-20	25	September	2013	52854	2.572	-0.63
Hollow	-10	-5	September	2013	52848	1.409	-1.05
Hollow	-20	-15	September	2013	nd	nd	nd
Hummock	+10	5	September	2013	52864	1.757	0.58
Hummock	-10	15	September	2013	nd	nd	nd
Hummock	-20	25	September	2013	nd	nd	nd
Hollow	-10	-5	September	2013	52855	14.479	0.74
Hollow	-20	-15	September	2013	52856	1.225	2.26
Hummock	+10	5	September	2013	52861	9.482	0.68
Hummock	-10	15	September	2013	52862	6.206	1.45
Hummock	-20	25	September	2013	nd	nd	nd
Hollow	-10	-5	September	2013	52863	7.623	-0.49
Hollow	-20	-15	September	2013	52865	3.693	0.76
Hummock	+10	5	September	2013	52868	6.061	-1.76
Hummock	-10	15	September	2013	52869	5.851	0.33
Hummock	-20	25	September	2013	52870	1.919	1.20
Hollow	-10	-5	September	2013	52866	1.507	-0.30
Hollow	-20	-15	September	2013	nd	nd	nd
Hummock	+10	5	June	2014	62964	0.446	2.58
Hummock	-10	15	June	2014	62957	3.622	-1.88
Hummock	-20	25	June	2014	nd	nd	nd
Hollow	-10	-5	June	2014	62960	5.169	0.30
Hollow	-20	-15	June	2014	nd	nd	nd
Hummock	+10	5	June	2014	62961	0.538	3.71
Hummock	-10	15	June	2014	62962	0.582	2.49
Hummock	-20	25	June	2014	62967	0.027	3.18
Hollow	-10	-5	June	2014	62966	0.998	0.89
Hollow	-20	-15	September	2014	62965	0.092	3.04
Hummock	+10	5	June	2014	62972	3.637	-1.38
Hummock	-10	15	June	2014	62974	4.559	0.06
Hummock	-20	25	June	2014	62968	5.667	0.73
Hollow	-10	-5	June	2014	62973	1.784	0.30

Hollow	-20	-15	June	2014	nd	nd	nd	
Hummock	+10	5	June	2014	62975	1.133	4.75	
Hummock	-10	15	June	2014	nd	nd	nd	
Hummock	-20	25	June	2014	nd	nd	nd	
Hollow	-10	-5	June	2014	62976	0.084	5.73	
Hollow	-20	-15	June	2014	nd	nd	nd	
Hummock	+10	5	June	2014	62989	0.178	5.01	
Hummock	-10	15	June	2014	62988	0.116	3.28	
Hummock	-20	25	June	2014	nd	nd	nd	
Hollow	-10	-5	June	2014	62986	1.097	-0.80	
Hollow	-20	-15	June	2014	62987	1.22	3.44	
Hummock	+10	5	June	2014	62979	0.75	0.89	
Hummock	-10	15	June	2014	62981	1.391	1.40	
Hummock	-20	25	June	2014	nd	nd	nd	
Hollow	-10	-5	June	2014	62980	5.343	-2.22	
Hollow	-20	-15	June	2014	62985	0.551	0.43	
Hummock	+10	5	September	2014	62991	5.624	-0.89	
Hummock	-10	15	September	2014	62995	5.801	-0.28	
Hummock	-20	25	September	2014	63020	2.382	0.29	
Hollow	-10	-5	September	2014	62992	4.927	-0.73	
Hollow	-20	-15	September	2014	nd	nd	nd	
Hummock	+10	5	September	2014	62993	6.043	-2.06	
Hummock	-10	15	September	2014	63018	5.897	-2.87	
Hummock	-20	25	September	2014	63021	5.639	-0.11	
Hollow	-10	-5	September	2014	62994	4.352	-1.01	
Hollow	-20	-15	September	2014	63059	3.921	2.87	
Hummock	+10	5	September	2014	63022	2.392	-0.90	
Hummock	-10	15	September	2014	63027	5.087	1.37	
Hummock	-20	25	September	2014	63034	4.202	1.55	
Hollow	-10	-5	September	2014	63024	3.49	-0.55	
Hollow	-20	-15	September	2014	63028	5.493	-1.82	
Hummock	+10	5	September	2014	63025	1.969	-1.52	
Hummock	-10	15	September	2014	63032	5.962	-6.27	
Hummock	-20	25	September	2014	63035	5.574	0.64	
Hollow	-10	-5	September	2014	63026	5.308	-3.19	
Hollow	-20	-15	September	2014	63033	4.679	-3.09	
Hummock	+10	5	September	2014	63041	6.03	-0.39	
Hummock	-10	15	September	2014	63039	5.545	-0.28	
Hummock	-20	25	September	2014	63036	0.207	-0.56	
Hollow	-10	-5	September	2014	63040	6.053	-0.22	
Hollow	-20	-15	September	2014	63038	1.596	0.57	
Hummock	+10	5	September	2014	63049	6.094	4.67	
Hummock	-10	15	September	2014	63046	6.091	1.08	
Hummock	-20	25	September	2014	63048	6.005	1.54	
Hollow	-10	-5	September	2014	63042	6.011	-0.95	
Hollow	-20	-15	September	2014	63047	0.425	0.08	

from hummock, Hi or hollow, Lo), and depth of ingrowth core placement.

%N	d13C (‰)	%C	C/N	Ampl (mV) 28[4]	Ampl (mV) 44[4]	Notes
0.26	-25.66	4.34	17.01	761	3070	
nd	nd	nd	nd	nd	nd	No mass (ripped bag)
0.15	-25.81	1.81	11.77	285	1099	
nd	nd	nd	nd	nd	nd	No mass
nd	nd	nd	nd	nd	nd	No record
0.49	-25.37	6.67	13.54	1116	3378	
1.42	-25.80	16.76	11.78	548	1730	
nd	nd	nd	nd	nd	nd	No mass
0.50	-25.02	5.59	11.18	655	1876	
nd	nd	nd	nd	nd	nd	No mass
0.24	-26.21	2.60	10.87	610	1730	
0.48	-26.91	4.54	9.53	1073	2383	
0.91	-27.13	10.25	11.21	604	1775	
0.97	-27.07	9.51	9.81	305	993	
nd	nd	nd	nd	nd	nd	
0.88	-26.23	6.14	6.96	342	799	
nd	nd	nd	nd	nd	nd	
nd	nd	nd	nd	nd	nd	Very small amount was obtained
0.26	-25.76	3.71	14.42	1038	3377	
0.58	-26.56	1.94	3.33	100	304	
0.20	-24.85	1.86	9.49	443	1239	
0.67	-25.78	7.02	10.51	1160	2776	
nd	nd	nd	nd	nd	nd	Very small amount was obtained
0.51	-26.10	7.32	14.28	1067	3417	
0.37	-25.30	3.54	9.56	290	936	
0.39	-26.27	3.87	9.84	587	1545	
0.43	-25.44	5.95	13.72	633	2210	
0.84	-26.95	7.93	9.40	362	1060	
0.92	-27.01	9.73	10.60	296	1030	
nd	nd	nd	nd	nd	nd	
2.36	-25.67	24.44	10.34	199	738	
0.34	-26.47	2.78	8.12	287	694	
nd	nd	nd	nd	nd	nd	
0.41	-26.55	5.19	12.74	537	1790	very little hyphae
nd	nd	nd	nd	nd	nd	Didn't get any collectable hyphae
2.28	-27.66	24.14	10.61	259	876	
6.93	-25.87	73.53	10.61	1133	2847	
25.05	-26.17	210.84	8.42	84	400	
1.59	-26.69	15.29	9.59	368	1031	
7.68	-26.62	49.70	6.47	95	326	
1.99	-25.58	19.79	9.93	2118	4745	
1.84	-27.42	15.85	8.62	2491	4769	
1.52	-27.89	19.02	12.54	2572	7102	
4.98	-27.87	46.20	9.28	2646	5456	

nd	nd	nd	nd	nd	nd		
0.60	-24.99	0.90	1.49	89	94		
nd	nd	nd	nd	nd	nd	very little hyphae	
nd	nd	nd	nd	nd	nd		
9.17	-24.83	16.36	1.78	112	117		
nd	nd	nd	nd	nd	nd	very little hyphae	
3.55	-25.80	12.44	3.51	69	171		
8.03	-26.20	22.77	2.84	155	199		
nd	nd	nd	nd	nd	nd		
1.62	-27.02	16.07	9.92	418	1178		
2.81	-25.05	28.59	10.16	929	2316		
3.46	-27.43	26.31	7.60	666	1319		
1.50	-27.39	12.99	8.67	512	1212		
nd	nd	nd	nd	nd	nd	very little hyphae	
1.61	-27.46	19.83	12.35	2539	6936		
1.97	-27.34	16.38	8.32	197	612		
1.24	-25.42	17.26	13.97	2036	6420		
1.63	-25.28	18.66	11.48	2838	7144		
1.48	-26.00	18.29	12.40	1004	2918		
2.70	-28.22	27.43	10.15	4066	8878		
nd	nd	nd	nd	nd	nd	Didn't get any collectable hyphae	
1.29	-25.74	16.57	12.85	2290	6602		
3.65	-25.80	48.01	13.15	6854	18193		
1.09	-25.63	15.69	14.46	1837	5932		
2.34	-26.27	29.52	12.59	3089	8476		
0.90	-25.68	9.82	10.91	957	2702		
3.26	-25.03	48.33	14.84	2384	7761		
2.13	-24.60	25.19	11.85	3376	8640		
1.41	-25.11	17.87	12.71	1775	5067		
1.41	-26.55	14.92	10.56	1465	3502		
1.42	-26.44	18.70	13.13	2395	6917		
1.80	-26.02	20.20	11.24	1009	2668		
1.51	-26.26	17.83	11.82	2764	7133		
0.99	-25.50	13.53	13.61	1659	5103		
1.14	-28.39	14.21	12.45	1817	5078		
2.15	-25.96	26.24	12.22	3144	8262		
0.54	-24.74	8.08	14.95	910	3308		
0.48	-24.19	7.50	15.47	731	2804		
2.54	-24.94	7.79	3.07	58	90		
0.73	-25.36	11.90	16.33	1279	4883		
1.55	-25.90	21.44	13.82	660	2300		
2.31	-24.44	22.05	9.54	4459	9106		
0.52	-24.35	7.70	14.84	871	3172		
0.63	-25.53	8.44	13.39	1077	3429		
0.60	-27.37	7.45	12.35	1031	3015		
7.01	-28.17	73.15	10.44	824	2093		