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Soil carbon and nitrogen data set for a soil sequence disturbed by timber harvest, Blodgett Experimental Forest, Georgetown, California.

By

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Introduction

The purpose of this study is to better understand changes in soil carbon storage in response to modern timber harvest from the time of harvest to decades after harvest. Utilizing the records of the Blodgett Experimental Forest, we compare plots that were logged at various times in the past but were managed similarly and had similar soil types, slopes, aspects, micro-climates, and forest management practices. In order to quantify the field and management induced variability, 110 sample sites were investigated in forests of 6 stages of disturbance related to the time since harvest. Over 400 soil samples were collected. This report documents the field and lab methods used to calculate changes in soil carbon storage and reports the data. The discussion of the results and implications are presently in press and are likely to appear late in 1994 or early 1995.

Study Area

The Blodgett Research Forest is located near Georgetown, California on the western flank of the Sierra Nevada mountains (38° 52' N, 120° 40" W) between 1250 and 1350 m elevation. Precipitation averages 165 cm annually, with 85% occurring between October and March. The average January daily temperature is 9°C. The summers are dry and warm with an average August daily temperature of 27°C [Heald, 1981]. Granodiorite is the dominant lithology underlying the forest with a minor proportion of Tertiary Andesitic mud flows.

Soil in the study plots are mapped as Holland series, a well drained fine loamy mixed mesic Ultic Haploxeralf [Mitchell and Silverman, 1984, Staff 1990]. The soil is developed to a depth of over 150 cm with a well developed argillic horizon. When not heavily disturbed, a typical Holland soil develops a three-tiered organic horizon with litter, partially decomposed litter, and humified horizons. The uppermost 2-3 cm consists of fresh litter fall, which shows little evidence of

decomposition in the field. Below the fresh litter are 3-4 centimeters of partially decomposed needles, stems, and plant parts that are often matted together, but still retain some original structure (O1 horizon). Below the O1 horizon are 2-4 centimeters of well decomposed organic detritus (humus), retaining little original plant structure, but rich in fine roots and fungal hyphae (O2 horizon).

The native mixed coniferous forest is comprised of white fir (*Abies concolor*), incense cedar (*Calocedrus decurrens*), Douglas fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), sugar pine (*Pinus lambertiana*) and California Black Oak (*Quercus kelloggii*).

The majority of the forest in the study area was clear-cut between 1912 and 1920, with the exception of a few isolated stands. A common practice at the time was to knock down any standing trees after harvest with the aid of a yarding cable. Following harvest, the plots were left to regenerate naturally, with the residual logging debris abandoned in place (Bob Heald, personal communication). The actively managed research forest provided a range of evenly-aged timber stands on soils that received similar post-harvest site preparation treatment. We selected plots that had experienced a second clear-cut and were subsequently replanted to a mixed coniferous forest. The soil disturbance associated with this second timber harvest is manyfold, including tree felling, road building, log skidding, and the movement of heavy equipment across a plot, all of which may introduce or remove organic matter from the soil and cause compaction. Trees were harvested in the summer. Un-harvested organic matter (slash) was piled on top of the existing forest floor and allowed to dry, then was dragged into piles with a bulldozer-mounted brush rake and burned in the fall. This standard method is used to clear the plot of debris from harvest, to reduce competition from successional species, and to facilitate planting.

Plots were selected to represent the various stages of regrowth and recovery from deforestation. The variables of soil type, slope, aspect, elevation, vegetation

type, and management history were similar among plots, while the time since disturbance was variable. Two plots represent pre-harvest conditions, one a mature second growth forest (cut once 79 years before sampling) and one in an old growth forest (never clear-cut). Four plots were chosen to represent soil conditions after modern harvest of the second growth forest, which occurred 2 year, 7 years, 12 years, and 17 years before sampling.

Sampling Plot Locations

For future reference, specific locations of sample plots are given within the Blodgett Forest management compartments.

The Old Growth plot, (BL 5), is located in the center of Blodgett Forest compartment 290. From the intersection of Bacci Barn Road and Wentworth Springs Road, follow a bearing of S 18° E, 182 meters down the ridge crest to the northwest corner of the plot.

The 79 year plot, (BL4), is located in Blodgett compartment 220. Follow Wentworth Springs road in the eastbound direction 0.4 miles past the intersection with the entrance road to the research station. Park at the abandoned logging road spur on the North side of Wentworth Springs road and walk upslope 40 meters to the southern edge of the plot. The abandoned logging road passes through the center of the plot.

The 17 year plot, (BL3), is located in Blodgett Forest compartment 481 in the Gaddis Creek drainage. Park on the Gaddis Loop road 0.13 miles South of the intersection of the 470 cutoff road and Gaddis Loop. Travel upslope to the West 20 meters to reach the northeast corner of the plot.

The 12 year plot, (BL2.5), is located in Blodgett Forest compartment 321. Enter the forest on Main Line Road, travel south for 0.13 miles to the cattle guard and park. From the cattle guard, follow the fence line boundary between 321 and 322

north for 128 meters. The southwest corner of the plot is 28 meters downslope to the East.

The 7 year plot, (BL2), is located in Blodgett Forest compartment 381. Compartment 381 is a small selection clear-cut in compartment 380. Enter the forest on Main Line Road, park 0.1 miles South of the 330/380 boundary line. Travel down slope 30 meters into the small clear-cut to reach the southwest corner of the plot.

The two year plot, (BL 1), is located in Blodgett Forest compartment 400. The site is located in a small clear-cut on the inside of a tight bend in the Main Line Road, where it intersects the Stoodley Road. The southern corner of the plot is located 21 meters on a bearing of N 35° W from the center of the intersection of the two roads.

Methods

Field Sampling

Samples were collected in October and November of 1992, and in June of 1993. At each of the six plots a grid 40 m by 30 m was surveyed with the long axis parallel to the slope. Twenty sampling sites per plot were located at 10 m intervals along each grid. Organic horizons were sampled volumetrically by inserting a sharp steel cylinder with a diameter of 23 cm through fresh litter, decomposed litter and humified O horizons. Twigs and debris were cut with a saw where they contacted the cylinder. The thickness of each organic sub-horizon was measured, described and sampled into individual high density polyethylene bags. Organic matter > 25 mm. (coarse woody debris) was discarded because we felt the sampling cylinder size was too small to accurately sample such large debris. Mineral soil was sampled at depths of 10 and 20 cm below the O horizon using a double ring core sampler (sleeve

length 10 cm and diameter 8.6 cm). The field properties of each sample and the depth to the B horizon were recorded.

Lab Methods

Sample preparation included splitting, weighing, homogenization, and sieving. Field moisture content was determined gravimetrically by drying a sub-sample in a tarred crucible in a forced draft oven at 105°C for 48 hours for mineral horizons [Gardner, 1986] and 65°C for 72 hours for organic horizons [Chapman, 1961]. Remaining bulk splits were homogenized by hand and air dried on aluminum foil for 14 days at room temperature. Gravel content and coarse organic debris >2mm were sieved and weighed for calculations to whole soil fraction. Splits for carbon and nitrogen determination were taken from each air dry <2 mm sample with a riffle splitter. Mineral horizon samples were ground on a Bico plate grinding mill with alumina plates, followed by agate mortar and pestle reduction to pass a 100 mesh sieve. Organic horizon samples and wood and coarse root samples were ground with a UDY Cyclone impeller mill fitted with a 60 mesh brass screen, then ground by agate mortar and pestle to pass a 100 mesh sieve. Carbon and nitrogen content were analyzed with a Leco total carbon analyzer and a Carlo Erba C:H:N analyzer. Results from the two methods correlated at r^2 = .99; significance .05.

Five of twenty sites were selected at each plot for characterization of C and N content in organic horizons. We used the weight of organic matter of each horizon at each sample site, and the mean weight % C and N for the 5 replicates to calculate C and N storage for litter, decomposed litter, and O horizons of the 20 sites. We also used this approach for the wood and root debris in the mineral horizon cores. Total organic carbon and nitrogen storage in the mineral soil was determined directly for all samples, and the C and N content for wood and root debris was determined

separately and added in. The coarse woody debris >25 mm are not included in the data because of the difficulty in representative sampling.

Calculations of g C and N per cm-2 were based on air-dry weights, carbon contents of air-dry samples, and core volumes according to Eq. 1.

Eq. 1　　　　$SOC_{tot} = SOC_{<2mm} + SOC_{2-25mm}$　　　　　　　　(Eq. 1)

where:

$SOC_{<2mm} = (\%C_{<2mm}/100) *(wt. <2mm)/(core\ volume) *$
core thickness

$SOC_{2-25mm} = (\%C_{2-25mm})*(wt.\ 2-25mm) /core\ volume *$
core thickness

SOC = soil organic carbon

tot = total

<2mm = less-than-2mm fraction

2-25mm = 2 to 25 mm fraction

%C = percent C air-dry basis

Wt <2mm= grams <2mm soil air dry per core

Core volume = volume sampled (cm^3) = 564.7 cm^2 for core,
　　　　　　$=\pi * (16.5)^2 *$ horizon thickness　for organic horizons

Core thickness = vertical increment of core (cm)

References

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Key to spreadsheet terms

Term	Explanation
Sample Number	Each sample plot at each site is numbered sequentially. Each plot potentially can yield up to six sample types (horizons)
Slash	Slash horizons are homogenized surface organics and mineral soil
Fresh	Fresh litter horizons are primarily leaf, needle and stem wood material
Dec.	Decomposing litter horizons are partially decomposed organic material
O.	O horizons are heavily decomposed organic material
1 0	10 cm depth increment below the mineral soil surface
2 0	20 cm depth increment below the mineral soil surface
Cm above B	Sample depths refer to the height in centimeters that the base of a sample increment is above the B horizon boundary
Airdry wt.	Total sample weight in grams after air drying
% H2O, field moist soil	Grams of water per gram of oven dried soil
Root+wood wt.	Grams of organic material >2mm but <25mm.
>2mm gravel wt.	Grams of air dry >2mm gravel
Mean of 5 in [ ]	Mean weight percent C and N in 5 random samples
%C in soil	Weight percent C in air dry sample
%N in soil	Weight percent N in air dry sample
%C in roots	Weight percent C in air dry sample
%N in roots	Weight percent N in air dry sample
Bulk Density,<2mm air dry	Grams * cm -3 of air dry <2mm mineral soil excluding roots
Bulk Density	Grams * cm -3 of oven dry <2mm mineral soil excluding roots
Grams C/ cm^2	Grams C/ cm^2
Grams C/cm^2/profile	Carbon storage in surface organic matter and mineral soil to 20 cm
Grams N/ cm^2	Grams N/ cm^2
grams N/cm^2/profile	Nitrogen storage in surface organic matter and mineral soil to 20 cm
Blank cell	Sample or horizon not present in field
Zero entry	Data point of zero
na	Analysis not performed

BL1 The two year post harvest plot

Sample Number	Cm above B horizon boundary	Airdry wt. (g.)	% H2O, field-moist to ovendry	Root+wood wt. (g)	>2mm gravel wt. (g.)	%C in soil (mean of 5 in [])	%N in soil (mean of 5 in [])	%C in roots (mean of 5 in [])	%N in roots (mean of 5 in [])	Bulk Density <2mm, airdry	Bulk Density <2mm, ovendry	Grams C/ cm^2	Grams C/cm^2 profile	Grams N/ cm^2	grams N/cm^2 profile
BL.92.1.Sketh.1	27.00	114.19	na	na	na	[32.1]	[0.54]	na	na	0.14	0.14	0.09	1.01	.0015	.0539
BL.92.1.Fresh.1															
BL.92.1.Dec.1															
BL.92.1.O.1						24.19									
BL.92.1.10.1	17.00	508.56	11.27	7.52	18.67	5.91	[0.35]	[44.4]	[0.60]	0.85	0.82	0.56		.0306	
BL.92.1.20.1	7.00	587.03	15.76	2.27	12.10	3.36	[0.21]	[44.2]	[0.66]	1.01	0.97	0.36		.0216	
BL.92.1.Sketh.2	23.00	81.90	na	na	na	[32.1]	[0.54]	na	na	0.08	0.08	0.06	1.22	.0011	.0481
BL.92.1.Fresh.2															
BL.92.1.Dec.2															
BL.92.1.O.2						0.35									
BL.92.1.10.2	13.00	408.79	11.95	20.75	0.00	5.99	0.18	40.75	0.54	0.68	0.66	0.57		.0264	
BL.92.1.20.2	3.00	549.10	23.06	7.56	9.31	5.62	0.20	[44.2]	[0.66]	0.94	0.90	0.59		.0207	
BL.92.1.Sketh.3	21.00	24.69	na	na	na	[32.1]	[0.54]	na	na	0.06	0.07	0.02	1.09	.0003	.0552
BL.92.1.Fresh.3															
BL.92.1.Dec.3															
BL.92.1.O.3															
BL.92.1.10.3	11.00	540.08	6.01	2.82	0.00	7.01	[0.35]	[44.4]	[0.60]	0.95	0.90	0.69		.0337	
BL.92.1.20.3	1.00	571.31	8.52	3.39	8.69	3.67	[0.21]	40.60	0.54	0.99	0.94	0.39		.0212	
BL.92.1.Sketh.4	32.00	39.30	na	na	na	[32.1]	[0.54]	na	na	0.09	0.09	0.03	1.18	.0005	.0497
BL.92.1.Fresh.4															
BL.92.1.Dec.4															
BL.92.1.O.4															
BL.92.1.10.4	22.00	454.86	13.62	10.86	7.89	9.26	[0.35]	45.65	0.73	0.77	0.73	0.60		.0263	
BL.92.1.20.4	12.00	564.27	18.61	3.32	10.33	3.34	0.54	[44.2]	[0.66]	0.97	0.93	0.35		.0209	
BL.92.1.Sketh.5	27.00	41.73	na	na	na	[32.1]	[0.54]	na	na	0.09	0.09	0.03	0.99	.0005	.0506
BL.92.1.Fresh.5															
BL.92.1.Dec.5															
BL.92.1.O.5															
BL.92.1.10.5	17.00	460.88	13.51	6.68	0.00	8.17	[0.35]	[44.4]	[0.60]	0.80	0.76	0.71		.0290	
BL.92.1.20.5	7.00	563.86	17.97	1.90	0.00	2.40	[0.21]	[44.2]	[0.66]	0.99	0.95	0.25		.0211	
BL.92.1.Sketh.6	26.00	277.52	na	na	na	[32.1]	[0.54]	na	na	0.13	0.14	0.21	1.13	.0036	.0496
BL.92.1.Fresh.6															
BL.92.1.Dec.6															
BL.92.1.O.6															
BL.92.1.10.6	16.00	458.89	9.80	1.44	14.98	7.54	[0.35]	[44.4]	[0.60]	0.78	0.73	0.60		.0277	
BL.92.1.20.6	6.00	510.06	11.13	0.81	18.92	3.61	[0.21]	[44.2]	[0.66]	0.86	0.82	0.32		.0183	
BL.92.1.Sketh.7	13.00	127.41	na	na	na	[32.1]	[0.54]	na	na	0.12	0.08	0.10	1.08	.0017	.0584
BL.92.1.Fresh.7															
BL.92.1.Dec.7															
BL.92.1.O.7															
BL.92.1.10.7	3.00	528.49	7.61	7.39	0.00	6.96	[0.35]	[44.4]	[0.60]	0.92	0.87	0.70		.0332	
BL.92.1.20.7	-7.00	640.19	13.57	0.65	8.01	2.51	[0.21]	45.09	0.64	1.11	1.07	0.28		.0236	
BL.92.1.Sketh.8	32.00	78.68	na	na	na	[32.1]	[0.54]	na	na	0.09	0.11	0.06	0.96	.0010	.0564
BL.92.1.Fresh.8															
BL.92.1.Dec.8															
BL.92.1.O.8															
BL.92.1.10.8	22.00	577.03	11.00	3.28	0.00	5.24	[0.35]	[44.4]	[0.60]	1.01	0.97	0.56		.0361	
BL.92.1.20.8	12.00	525.32	17.78	0.42	6.92	3.72	[0.21]	[44.2]	[0.66]	0.91	0.87	0.34		.0193	
BL.92.1.Sketh.9	21.00	413.30	na	na	na	[32.1]	[0.54]	na	na	0.09	0.14	0.32	1.40	.0054	.0406
BL.92.1.Fresh.9															
BL.92.1.Dec.9															
BL.92.1.O.9															
BL.92.1.10.9	11.00	180.86	44.93	49.97	0.00	14.92	[0.35]	[44.4]	[0.60]	0.23	0.21	0.74		.0135	
BL.92.1.20.9	1.00	587.55	16.34	2.68	8.32	3.24	0.62	47.61	0.62	1.02	0.98	0.35		.0217	
BL.92.1.Sketh.10	32.00	158.36	na	na	na	[32.1]	[0.54]	na	na	0.13	0.14	0.12	1.09	.0021	.0470
BL.92.1.Fresh.10															
BL.92.1.Dec.10															
BL.92.1.O.10															
BL.92.1.10.10	22.00	451.07	21.56	5.13	19.46	7.19	[0.35]	[44.4]	[0.60]	0.75	0.71	0.58		.0271	
BL.92.1.20.10	12.00	474.72	21.06	3.15	0.00	4.36	[0.21]	[44.2]	[0.66]	0.83	0.79	0.39		.0179	

BL1 The two year post harvest plot

Plot	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15
BL.92.1.Slash.11	24.00	124.37	na	na	na	24.24	0.85	na	na	0.15	0.17	0.10	1.04	.0016	.0397
BL.92.1.Fresh.11															
BL.92.1.Dec.11															
BL.92.1.O.11															
BL.92.1.10.11	14.00	348.97	17.19	3.75	12.50	8.96	0.37	[44.4]	[0.60]	0.59	0.55	0.55		.0211	
BL.92.1.20.11	4.00	479.31	27.62	0.91	24.69	4.80	[0.21]	41.57	0.97	0.80	0.78	0.39		.0170	
BL.92.1.Slash.12	19.00	9.33	na	na	na	[32.1]	[0.54]	na	na	0.22	0.13	0.01	0.91	.0001	.0405
BL.92.1.Fresh.12															
BL.92.1.Dec.12															
BL.92.1.O.12															
BL.92.1.10.12	9.00	420.51	14.71	4.28	9.66	6.32	[0.35]	[44.4]	[0.60]	0.72	0.66	0.49		.0258	
BL.92.1.20.12	-1.00	403.76	23.69	1.26	14.14	5.87	[0.21]	[44.2]	[0.66]	0.68	0.65	0.41		.0146	
BL.92.1.Slash.13	15.00	7.76	na	na	na	[32.1]	[0.54]	na	na	0.02	0.02	0.01	0.93	.0001	.0394
BL.92.1.Fresh.13															
BL.92.1.Dec.13															
BL.92.1.O.13															
BL.92.1.10.13	5.00	361.44	5.35	48.87	0.00	5.73	[0.35]	46.57	0.57	0.55	0.52	0.70		.0246	
BL.92.1.20.13	-5.00	401.27	13.58	0.61	9.01	3.20	[0.21]	[44.2]	[0.66]	0.69	0.66	0.23		.0146	
BL.92.1.Slash.14	37.00	184.53	na	na	na	[32.1]	[0.54]	na	na	0.15	0.16	0.14	1.43	.0024	.0308
BL.92.1.Fresh.14															
BL.92.1.Dec.14															
BL.92.1.O.14															
BL.92.1.10.14	27.00	201.11	9.71	24.63	0.00	17.03	0.45	48.01	0.46	0.31	0.29	0.72		.0136	
BL.92.1.20.14	17.00	357.76	13.95	19.47	0.00	6.93	0.24	[44.2]	[0.66]	0.60	0.56	0.56		.0148	
BL.92.1.Slash.15	25.00	56.12	na	na	na	32.75	0.35	na	na	0.07	0.07	0.04	0.96	.0007	.0413
BL.92.1.Fresh.15															
BL.92.1.Dec.15															
BL.92.1.O.15															
BL.92.1.10.15	15.00	424.86	7.87	7.22	15.48	7.65	0.30	[44.4]	[0.60]	0.64	0.60	0.77		.0258	
BL.92.1.20.15	5.00	404.63	14.62	0.56	7.75	4.46	0.17	[44.2]	[0.66]	0.63	0.60	0.31		.0148	
BL.92.1.Slash.16	33.00	90.36	na	na	na	33.85	0.50	na	na	0.07	0.08	0.08	1.16	.0012	.0381
BL.92.1.Fresh.16															
BL.92.1.Dec.16															
BL.92.1.O.16															
BL.92.1.10.16	23.00	375.28	10.83	7.80	8.74	11.23	0.46	[44.4]	[0.60]	0.71	0.67	0.60		.0233	
BL.92.1.20.16	13.00	374.57	20.04	3.28	13.25	4.55	0.21	[44.2]	[0.66]	0.70	0.66	0.32		.0137	
BL.92.1.Slash.17	23.00	34.55	na	na	na	[32.1]	[0.54]	na	na	0.12	0.14	0.12	1.03	.0005	.0495
BL.92.1.Fresh.17															
BL.92.1.Dec.17															
BL.92.1.O.17															
BL.92.1.10.17	13.00	491.13	9.02	2.80	17.18	6.13	[0.35]	[44.4]	[0.60]	0.83	0.79	0.53		.0296	
BL.92.1.20.17	3.00	532.49	26.83	1.92	14.29	5.06	[0.21]	[44.2]	[0.66]	0.91	0.87	0.48		.0194	
BL.92.1.Slash.18	32.00	14.34	na	na	na	[32.1]	[0.54]	na	na	0.17	0.17	0.01	0.89	.0002	.0387
BL.92.1.Fresh.18															
BL.92.1.Dec.18															
BL.92.1.O.18															
BL.92.1.10.18	22.00	431.72	7.62	10.85	0.00	6.89	[0.35]	41.11	0.71	0.60	0.60	0.77		.0273	
BL.92.1.20.18	12.00	300.28	13.77	0.85	0.00	5.27	[0.21]	45.96	0.50	0.83	0.80	0.31		.0112	
BL.92.1.Slash.19	29.00	154.31	na	na	na	43.80	0.66	na	na	0.12	0.14	0.17	0.99	.0020	.0449
BL.92.1.Fresh.19															
BL.92.1.Dec.19															
BL.92.1.O.19															
BL.92.1.10.19	19.00	456.41	8.04	6.04	0.00	6.93	[0.35]	[44.4]	[0.60]	0.79	0.78	0.59		.0287	
BL.92.1.20.19	9.00	383.83	13.77	1.66	4.38	3.96	[0.21]	[44.2]	[0.66]	0.67	0.64	0.28		.0142	
BL.92.1.Slash.20	22.00	430.26	na	na	na	[32.1]	[0.54]	na	na	0.17	0.17	0.33	1.18	.0058	.0461
BL.92.1.Fresh.20															
BL.92.1.Dec.20															
BL.92.1.O.20															
BL.92.1.10.20	12.00	390.86	14.15	2.92	0.00	7.18	[0.35]	[44.4]	[0.60]	0.66	0.65	0.51		.0244	
BL.92.1.20.20	2.00	443.91	19.74	2.18	17.21	4.21	[0.21]	[44.2]	[0.66]	0.75	0.71	0.33		.0160	

BL2 The seven year post harvest plot

Sample Number	Cm above B horizon boundary (g)	Airdry wt. (g)	% H2O, field-moist to ovendry (g)	Rootwood wt. (g)	>2mm gravel wt. (g)	%C in soil / mean of 5 in []	%N in soil / mean of 5 in []	%C in roots / mean of 5 in []	%N in roots / mean of 5 in []	Bulk Density <2mm, airdry	Bulk Density <2mm, ovendry	Grams C/cm^2	Grams C/cm^2/profile	Grams N/cm^2	grams N/cm^2/profile
BL.92.2.Slash.1	6	61.47	na	na	na	[33.46]	[0.55]	na	na	0.20	0.18	0.07	0.91	.0011	.0464
BL.92.2.Fresh.1															
BL.92.2.Dec.1															
BL.92.2.O.1															
BL.92.2.10.1	-4	533.68	13.58	0.00	0.00	5.90	[0.31]	[45.49]	[0.72]	0.94	0.89	0.55		.0291	
BL.92.2.20.1	-14	660.40	14.67	0.00	0.00	2.48	[0.14]	[45.35]	[0.68]	1.16	1.12	0.29		.0183	
BL.92.2.Slash.2	28	123.73	na	na	na	[33.46]	[0.55]	na	na	0.15	0.14	0.10	1.14	.0016	.0321
BL.92.2.Fresh.2															
BL.92.2.Dec.2															
BL.92.2.O.2															
BL.92.2.10.2	18	287.30	9.40	55.34	28.00	6.36	[0.31]	[45.49]	[0.72]	0.36	0.33	0.67		.0181	
BL.92.2.20.2	8	500.41	12.27	0.00	0.00	4.20	[0.14]	[45.35]	[0.68]	0.88	0.84	0.37		.0123	
BL.92.2.Slash.3	15	54.37	na	na	na	[33.46]	[0.55]	na	na	0.13	0.12	0.04	1.26	.0007	.0469
BL.92.2.Fresh.3															
BL.92.2.Dec.3															
BL.92.2.O.3															
BL.92.2.10.3	5	610.29	7.97	10.59	45.15	8.37	[0.31]	[45.49]	[0.72]	0.98	0.93	0.90		.0316	
BL.92.2.20.3	-5	613.25	11.59	0.00	17.42	2.98	[0.14]	[45.35]	[0.68]	1.05	1.01	0.31		.0147	
BL.92.2.Slash.4	30	2333.10	na	na	na	[33.46]	[0.55]	na	na	0.14	0.13	1.88	2.47	.0306	.0764
BL.92.2.Fresh.4															
BL.92.2.Dec.4															
BL.92.2.O.4															
BL.92.2.10.4	20	563.27	12.19	1.75	7.43	3.12	[0.31]	[45.49]	[0.72]	0.98	0.94	0.32		.0304	
BL.92.2.20.4	10	621.37	12.41	3.32	8.74	2.27	[0.14]	[45.35]	[0.68]	1.07	1.03	0.27		.0154	
BL.92.2.Slash.5	18	3.09	na	na	na	[33.46]	[0.55]	na	na	0.04	0.03	0.00	1.28	.0000	.0416
BL.92.2.Fresh.5															
BL.92.2.Dec.5															
BL.92.2.O.5															
BL.92.2.10.5	8	539.08	8.56	0.31	9.73	7.82	[0.31]	[45.49]	[0.72]	0.93	0.89	0.73		.0289	
BL.92.2.20.5	-2	524.51	15.94	0.68	9.89	5.94	[0.14]	[45.35]	[0.68]	0.91	0.86	0.54		.0127	
BL.92.2.Slash.6	8	90.12	na	na	na	39.48	0.43	na	na	0.11	0.10	0.07	0.91	.0012	.0366
BL.92.2.Fresh.6															
BL.92.2.Dec.6															
BL.92.2.O.6															
BL.92.2.10.6	-2	467.16	10.22	6.39	15.18	6.60	0.24	48.11	0.70	0.79	0.75	0.57		.0251	
BL.92.2.20.6	-12	528.26	13.42	0.00	27.01	3.02	0.13	[45.35]	[0.68]	0.88	0.84	0.27		.0123	
BL.92.2.Slash.7	12	91.86	na	na	na	[33.46]	[0.55]	na	na	0.07	0.07	0.07	1.23	.0012	.0425
BL.92.2.Fresh.7															
BL.92.2.Dec.7															
BL.92.2.O.7															
BL.92.2.10.7	2	482.95	10.50	12.42	18.81	7.84	[0.31]	[45.49]	[0.72]	0.80	0.78	0.72		.0262	
BL.92.2.20.7	-8	600.66	13.57	6.17	12.40	3.77	[0.14]	45.55	0.62	1.03	0.99	0.44		.0151	
BL.92.2.Slash.8	35	846.76	na	na	na	30.63	0.83	na	na	0.29	0.28	0.68	1.88	.0111	.0349
BL.92.2.Fresh.8															
BL.92.2.Dec.8															
BL.92.2.O.8															
BL.92.2.10.8	25	143.38	18.12	61.48	0.00	10.89	[0.31]	[45.49]	[0.72]	0.14	0.13	0.65		.0122	
BL.92.2.20.8	15	366.03	20.23	26.29	0.00	5.66	[0.14]	[45.35]	[0.68]	0.60	0.57	0.55		.0115	
BL.92.2.Slash.9	5	575.41	na	na	na	[33.46]	[0.55]	na	na	0.46	0.44	0.46	1.48	.0076	.0464
BL.92.2.Fresh.9															
BL.92.2.Dec.9															
BL.92.2.O.9															
BL.92.2.10.9	-5	463.29	12.56	4.97	5.04	8.30	[0.31]	[45.49]	[0.72]	0.80	0.76	0.70		.0253	
BL.92.2.20.9	-15	547.70	13.58	0.41	0.00	3.17	[0.14]	[45.35]	[0.68]	0.96	0.93	0.31		.0135	
BL.92.2.Slash.10	0	27.53	na	na	na	[33.46]	[0.55]	na	na	0.07	0.06	0.02	0.66	.0004	.0463
BL.92.2.Fresh.10															
BL.92.2.Dec.10															
BL.92.2.O.10															
BL.92.2.10.10	-10	598.06	10.10	1.65	19.36	3.93	[0.31]	[45.49]	[0.72]	1.02	0.97	0.41		.0317	
BL.92.2.20.10	-20	624.15	12.96	1.21	49.25	2.13	[0.14]	[45.35]	[0.68]	1.01	0.97	0.23		.0143	

BL2 The seven year post harvest plot

Plot						[33.46]	[0.55]	na	na	0.35	0.32	0.12	0.92	.0019	.0352
BL.92.2.Slash.11	15	146.30	na	na	na	[33.46]	[0.55]	na	na	0.35	0.32	0.12	0.92	.0019	.0352
BL.92.2.Fresh.11															
BL.92.2.Dec.11															
BL.92.2.O.11															
BL.92.2.10.11	5	410.09	6.50	7.87	10.80	4.89	[0.31]	[45.49]	[0.72]	0.69	0.66	0.40		.0223	
BL.92.2.20.11	-5	449.30	15.22	3.56	16.45	5.02	[0.14]	[45.35]	[0.68]	0.75	0.72	0.41		.0109	
BL.92.2.Slash.12	31	37.92	na	na	na	[33.46]	[0.55]	na	na	0.09	0.08	0.03	1.25		.0411
BL.92.2.Fresh.12															
BL.92.2.Dec.12															
BL.92.2.O.12															
BL.92.2.10.12	21	547.18	7.72	10.06	12.49	5.84	[0.31]	[45.49]	0.97	0.92	0.90	0.82		.0299	
BL.92.2.20.12	11	415.19	17.17	11.03	19.94	7.60	[0.14]	[45.35]	[0.68]	0.88	0.66	0.60		.0108	
BL.92.2.Slash.13	21	361.14	na	na	na	27.69	0.84	na	na	0.22	0.20	0.29	1.41	.0047	.0453
BL.92.2.Fresh.13															
BL.92.2.Dec.13															
BL.92.2.O.13															
BL.92.2.10.13	11	533.42	12.61	2.54	39.24	7.81	[0.31]	45.55	[0.72]	0.87	0.81	0.70		.0271	
BL.92.2.20.13	1	555.41	13.39	1.41	15.63	4.34	0.22	[45.35]	0.74	0.95	0.90	0.42		.0134	
BL.92.2.Slash.14	22	84.85	na	na	na	36.58	0.40	na	na	0.10	0.10	0.07	1.13	.0011	.0505
BL.92.2.Fresh.14															
BL.92.2.Dec.14															
BL.92.2.O.14															
BL.92.2.10.14	12	597.58	10.22	0.00	10.56	6.92	[0.31]	[45.49]	[0.72]	1.03	0.99	0.72		.0320	
BL.92.2.20.14	2	712.96	12.07	0.00	5.52	2.76	[0.14]	45.14	0.74	1.25	1.20	0.34		.0174	
BL.92.2.Slash.15	19	191.15	na	na	na	32.91	0.44	na	na	0.46	0.43	0.15	1.66	.0025	.0420
BL.92.2.Fresh.15															
BL.92.2.Dec.15															
BL.92.2.O.15															
BL.92.2.10.15	9	370.86	9.21	84.99	3.29	9.76	[0.31]	49.66	0.43	0.53	0.50	1.04		.0247	
BL.92.2.20.15	-1	596.63	11.73	3.08	8.62	4.29	0.13	[45.35]	[0.68]	1.03	0.99	0.47		.0148	
BL.92.2.Slash.16	10	367.94	na	na	na	[33.46]	[0.55]	na	na	0.18	0.16	0.30	1.07	.0048	.0475
BL.92.2.Fresh.16															
BL.92.2.Dec.16															
BL.92.2.O.16															
BL.92.2.10.16	0	449.84	8.63	3.10	24.77	4.54	[0.31]	[45.49]	0.91	0.74	0.71	0.36		.0234	
BL.92.2.20.16	-10	487.46	12.76	1.63	33.52	4.94	[0.14]	[45.35]	[0.68]	0.80	0.76	0.41		.0113	
BL.92.2.Slash.17	26	936.24	na	na	na	[33.46]	[0.55]	na	na	0.28	0.26	0.75	1.69	.0123	.0473
BL.92.2.Fresh.17															
BL.92.2.Dec.17															
BL.92.2.O.17															
BL.92.2.10.17	16	440.42	10.75	0.72	13.26	6.80	[0.31]	43.74	[0.72]	0.75	0.71	0.52		.0233	
BL.92.2.20.17	6	489.43	13.89	1.38	12.70	4.91	[0.14]	[45.35]	[0.68]	0.84	0.80	0.42		.0119	
BL.92.2.Slash.18	16	123.11	na	na	na	[33.46]	[0.55]	na	na	0.30	0.26	0.10	1.01	.0016	.0387
BL.92.2.Fresh.18															
BL.92.2.Dec.18															
BL.92.2.O.18															
BL.92.2.10.18	6	607.32	11.46	1.73	24.82	5.09	[0.31]	[45.49]	0.91	1.02	0.97	0.54		.0319	
BL.92.2.20.18	-4	586.02	14.10	4.49	41.61	3.58	[0.14]	[45.35]	[0.68]	0.95	0.91	0.38		.0138	
BL.92.2.Slash.19	26	181.85	na	na	na	[33.46]	[0.55]	na	na	0.44	0.41	0.15	1.18	.0024	
BL.92.2.Fresh.19															
BL.92.2.Dec.19															
BL.92.2.O.19															
BL.92.2.10.19	16	465.65	10.21	3.06	29.31	8.25	[0.31]	[45.49]	[0.72]	0.76	0.72	0.65		.0240	
BL.92.2.20.19	6	493.21	14.70	1.72	0.00	4.27	[0.14]	[45.35]	[0.68]	0.87	0.83	0.38		.0123	
BL.92.2.Slash.20	22	910.24	na	na	na	[33.46]	[0.55]	na	na	0.37	0.34	0.73	1.49		.0541
BL.92.2.Fresh.20															
BL.92.2.Dec.20															
BL.92.2.O.20															
BL.92.2.10.20	12	570.70	11.73	1.23	28.04	4.61	[0.31]	[45.49]	[0.72]	0.95	0.91	0.45		.0297	
BL.92.2.20.20	2	521.55	14.23	1.13	17.89	3.39	[0.14]	[45.35]	[0.68]	0.89	0.85	0.31		.0125	

Note: %C and %N for the wood and root fraction are based on the mean of two samples at each depth.

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Sample Number	Cm above B horizon boundary	Airdry wt. (g.)	bulk % H2O, field-moist to ovendry (g.)	Root+wood wt. (g)	>2mm gravel wt. (g.)	%C in soil (mean of 5 in [ ])	%N in soil (mean of 5 in [ ])	%C in roots (mean of 5 in [ ])	%N in roots (mean of 5 in [ ])	Bulk Density <2mm, airdry	Bulk Density <2mm, ovendry	Grams C/ cm^2	Grams C/cm^2 profile	Grams N/ cm^2	Grams N/cm^2 profile
BL.92.2.5. Slash.1															
BL.92.2.5. Fresh.1	48.3	6.12	na	na	na	[40.89]	[0.42]	na	na	0.01	0.01	0.01	0.93	.0001	.0321
BL.92.2.5. Dec.1	48	0.00													
BL.92.2.5. O.1	48														
BL.92.2.5.10.1	38	471.96	10.53	3.22	9.32	6.52	0.23	[39.14]	[0.63]	0.81	0.79	0.53		.0184	
BL.92.2.5.20.1	28	568.77	12.22	1.54	10.49	4.07	0.14	[38.81]	[0.44]	0.98	0.95	0.40		.0136	
BL.92.2.5. Slash.2	38.5														
BL.92.2.5. Fresh.2	38	0.00	na	na	na			na	na				0.82	.0000	.0279
BL.92.2.5. Dec.2	38	11.82				[41.77]	[0.72]			0.06		0.01		.0002	
BL.92.2.5. O.2	38														
BL.92.2.5.10.2	28	431.92	11.78	2.66	1.89	5.20	0.21	[39.14]	[0.63]	0.75	0.73	0.39		.0152	
BL.92.2.5.20.2	18	527.75	11.88	7.14	2.49	4.19	0.14	[38.81]	[0.44]	0.91	0.90	0.42		.0125	
BL.92.2.5. Slash.3															
BL.92.2.5. Fresh.3	8	5.12	na	na	na	[40.89]	[0.42]	na	na	0.01	0.01	0.01	0.74	.0001	.0243
BL.92.2.5. Dec.3	7	23.38	na	na	na	[41.77]	[0.72]	na	na	0.06	0.02	0.02		.0004	
BL.92.2.5. O.3	7														
BL.92.2.5.10.3	-3	437.53	12.94	4.36	4.38	5.70	0.20	[39.14]	[0.63]	0.76	0.74	0.44		.0148	
BL.92.2.5.20.3	-13	542.22	13.61	1.7	16.26	2.93	0.10	[38.81]	[0.44]	0.92	0.90	0.27		.0091	
BL.92.2.5. Slash.4															
BL.92.2.5. Fresh.4	22	42.54	na	na	na	32.97	0.54	na	na	0.06	0.06	0.04	0.63	.0004	.0220
BL.92.2.5. Dec.4	21	21.19	na	na	na	48.00	0.54	na	na	0.05	0.02	0.02		.0004	
BL.92.2.5. O.4	21														
BL.92.2.5.10.4	11	641.39	14.41	1.71	9.12	2.95	0.12	36.04	0.30	1.11	1.07	0.33		.0131	
BL.92.2.5.20.4	1	517.31	13.05	5.27	12.66	2.51	0.09	42.57	0.38	0.88	0.87	0.24		.0080	
BL.92.2.5. Slash.5	28.5														
BL.92.2.5. Fresh.5	28	22.06	na	na	na	[40.89]	[0.42]	na	na	0.11	0.10	0.02	1.09	.0002	.0356
BL.92.2.5. Dec.5	28	0.00													
BL.92.2.5. O.5	28														
BL.92.2.5.10.5	18	559.27	8.35	9.31	40.94	6.26	0.20	[39.14]	[0.63]	0.90	0.88	0.60		.0185	
BL.92.2.5.20.5	8	578.02	13.51	8.28	68.74	4.84	0.19	[38.81]	[0.44]	0.88	0.85	0.46		.0169	
BL.92.2.5. Slash.6															
BL.92.2.5. Fresh.6	10	18.17	na	na	na	47.28	0.57	na	na	0.06	0.06	0.02	0.73	.0002	.0254
BL.92.2.5. Dec.6	9	36.20	na	na	na	37.12	0.65	na	na	0.09	0.03	0.04		.0006	
BL.92.2.5. O.6	9														
BL.92.2.5.10.6	-1	711.19	12.99	2.94	28.47	3.25	0.12	40.43	0.79	1.20	1.17	0.40		.0146	
BL.92.2.5.20.6	-11	637.42	10.96	4.19	55.01	2.56	0.10	32.46	0.36	1.02	1.00	0.28		.0100	
BL.92.2.5. Slash.7	4.99														
BL.92.2.5. Fresh.7	4	1.11	na	na	na	[40.89]	[0.42]	na	na	0.02	0.03	0.00	0.85	.0000	.0329
BL.92.2.5. Dec.7	4	30.08	na	na	na	[41.77]	[0.72]	na	na	0.07	0.07	0.03		.0005	
BL.92.2.5. O.7	4														
BL.92.2.5.10.7	-6	634.43	7.34	8.85	32.57	4.63	0.19	[39.14]	[0.63]	1.05	1.03	0.53		.0199	
BL.92.2.5.20.7	-16	613.71	10.38	6.38	16.56	2.49	0.12	[38.81]	[0.44]	1.04	1.01	0.29		.0124	
BL.92.2.5. Slash.8	3.5														
BL.92.2.5. Fresh.8	3	15.95	na	na	na	44.12	0.02	na	na	0.03	0.05	0.02	0.78	.0002	.0283
BL.92.2.5. Dec.8	2	102.27	na	na	na	38.82	1.10	na	na	0.18	0.08	0.10		.0018	
BL.92.2.5. O.8	2														
BL.92.2.5.10.8	-8	588.91	13.52	2.24	15.13	3.90	0.16	39.30	0.63	1.00	0.98	0.39		.0156	
BL.92.2.5.20.8	-18	662.39	13.16	1.67	17.19	2.41	0.10	44.18	0.44	1.13	1.11	0.27		.0107	
BL.92.2.5. Slash.9															
BL.92.2.5. Fresh.9	32	10.83	na	na	na	[40.89]	[0.42]	na	na	0.05	0.08	0.01	0.61	.0001	.0213
BL.92.2.5. Dec.9	30	51.63	na	na	na	[41.77]	[0.72]	na	na	0.08	0.06	0.05		.0009	
BL.92.2.5. O.9	30														
BL.92.2.5.10.9	20	671.34	13.86	2.42	0.00	4.68	0.18	[39.14]	[0.63]	1.18	1.14	0.55		.0203	
BL.92.2.5.20.9	10	533.82	16.47	2.04	8.13	3.41	0.13	[38.81]	[0.44]	0.92	0.90	0.31		.0112	
BL.92.2.5. Slash.10	19.5														
BL.92.2.5. Fresh.10	19	14.03	na	na	na	[40.89]	[0.42]	na	na	0.02	0.02	0.01	0.49	.0001	.0178
BL.92.2.5. Dec.10	19	7.28	na	na	na	[41.77]	[0.72]	na	na	0.04	0.01	0.01		.0001	
BL.92.2.5. O.10	19														
BL.92.2.5.10.10	9	558.27	15.32	0.57	16.75	[5.15]	[0.19]	[39.14]	[0.63]	0.95	0.92	0.00		.0001	
BL.92.2.5.20.10	-1	610.32	15.98	10.26	9.55	3.97	0.17	[38.81]	[0.44]	1.04	1.03	0.47		.0175	

BL2.5 The eleven year post harvest plot

Sample															
BL.92.2.5. Slash.11	11														
BL.92.2.5. Fresh.11	9	2.84	na	na	na	[40.89]	[0.42]	na	na	0.02	0.02	0.00	0.87	.0000	.0309
BL.92.2.5. Dec.11	8	43.78	na	na	na	[41.77]	[0.72]	na	na	0.05	0.05	0.04		.0008	
BL.92.2.5. O.11	8														
BL.92.2.5.10.11	-1	552.60	11.78	4.28	20.58	5.17	0.19	[39.14]	[0.63]	0.93	0.96	0.50		.0179	
BL.92.2.5.20.11	-11	564.55	15.60	1.11	10.32	3.32	0.13	[38.81]	[0.44]	1.01	0.97	0.33		.0122	
BL.92.2.5. Slash.12	28.5														
BL.92.2.5. Fresh.12	28	5.93	na	na	na	[40.89]	[0.42]	na	na	0.01	0.01	0.01	0.86	.0001	.0292
BL.92.2.5. Dec.12	28	46.69	na	na	na	[41.77]	[0.72]	na	na	0.22	0.07	0.05		.0008	
BL.92.2.5. O.12	18														
BL.92.2.5.10.12	19	528.77	16.76	10.7	35.28	5.03	0.19	[39.14]	[0.63]	0.85	0.83	0.48		.0163	
BL.92.2.5.20.12	8	620.48	15.95	3.09	28.44	3.12	0.12	[38.81]	[0.44]	1.04	1.00	0.33		.0120	
BL.92.2.5. Slash.13	31.2														
BL.92.2.5. Fresh.13	30	4.23	na	na	na	[40.89]	[0.42]	na	na	0.03	0.03	0.00	0.84	.0000	.0234
BL.92.2.5. Dec.13	30	28.17	na	na	na	[41.77]	[0.72]	na	na	0.06	0.04	0.03		.0005	
BL.92.2.5. O.13	29	103.27	na	na	na	[14.77]	[0.44]	na	na	0.07	0.07	0.04		.0011	
BL.92.2.5.10.13	19	380.52	10.66	30.79	26.86	10.16	0.34	[39.14]	[0.63]	0.57	0.60	0.77		.0217	
BL.92.2.5.20.13	9	517.88	13.97	14.45	26.21	4.74	0.17	[38.81]	[0.44]	0.84	0.85	0.48		.0145	
BL.92.2.5. Slash.14	22														
BL.92.2.5. Fresh.14	20	11.41	na	na	na	[40.89]	[0.42]	na	na	0.09	0.08	0.01	2.09	.0001	.0595
BL.92.2.5. Dec.14	10	62.84	na	na	na	[41.77]	[0.72]	na	na	0.20	0.20	0.06		.0011	
BL.92.2.5. O.14	10	1474.11	na	na	na	40.89	0.42	36.09	0.44	0.59	0.61	1.45		.0149	
BL.92.2.5.10.14	0	480.74	16.07	27.37	97.65	6.73	0.72	[39.14]	[0.63]	0.59	0.61	0.57		.0434	
BL.92.2.5.20.14	-10	522.07	17.49	1.76	16.12	3.98	0.17	[38.81]	0.74	0.89	0.85	0.35		.0376	
BL.92.2.5. Slash.15	26.3														
BL.92.2.5. Fresh.15	26	4.65	na	na	na	[40.89]	[0.42]	na	na	0.06	0.06	0.00	1.03	.0000	.0327
BL.92.2.5. Dec.15	26	0.00	na	na	na	[41.77]	[0.72]	na	na	0.20	0.08	0.06		.0011	
BL.92.2.5. O.15	26														
BL.92.2.5.10.15	16	525.36	12.35	41.74	37.93	4.14	0.13	[39.14]	[0.63]	0.59	0.84	0.60		.0145	
BL.92.2.5.20.15	8	474.12	12.26	2.66	19.98	5.18	0.23	[38.81]	[0.44]	0.89	0.78	0.42		.0181	
BL.92.2.5. Slash.16	7														
BL.92.2.5. Fresh.16	5	12.60	na	na	na	39.86	0.53	na	na	0.02	0.09	0.01	0.66	.0001	.0196
BL.92.2.5. Dec.16	1.5	73.99	na	na	na	39.46	0.86	na	na	0.09	0.04	0.07		.0013	
BL.92.2.5. O.16	1.5	252.75	na	na	na	14.77	0.44	na	na	0.06	0.06	0.09		.0027	
BL.92.2.5.10.16	-8.5	491.96	13.44	13.06	59.23	5.51	0.20	41.71	1.00	0.74	0.73	0.48		.0155	
BL.92.2.5.20.16	-18.5	603.53	11.74	5.14	46.63	1.42	0.05	41.27	0.46	0.97	0.95	0.14		.0048	
BL.92.2.5. Slash.17	15.5														
BL.92.2.5. Fresh.17	11	18.07	na	na	na	[40.89]	[0.42]	na	na	0.01	0.01	0.02	0.58	.0002	.0184
BL.92.2.5. Dec.17	11	103.44	na	na	na	[41.77]	[0.72]	na	na	0.06	0.03	0.10		.0018	
BL.92.2.5. O.17	1														
BL.92.2.5.10.17	1	472.70	13.14	9.41	47.19	5.33	0.22	[39.14]	[0.63]	0.73	0.72	0.44		.0162	
BL.92.2.5.20.17	-9	359.91	11.63	2.99	31.03	5.18	0.13	[38.81]	[0.44]	0.57	0.56	0.02		.0002	
BL.92.2.5. Slash.18	31														
BL.92.2.5. Fresh.18	29	6.94	na	na	na	[40.89]	[0.42]	na	na	0.05	0.01	0.01	0.64	.0001	.0220
BL.92.2.5. Dec.18	29	103.36	na	na	na	[41.77]	[0.72]	na	na	0.12	0.10	0.10		.0018	
BL.92.2.5. O.18	29														
BL.92.2.5.10.18	19	483.19	13.58	4.25	51.55	4.04	0.17	[39.14]	[0.63]	0.75	0.73	0.32		.0123	
BL.92.2.5.20.18	9	441.71	11.91	3.2	18.94	2.65	0.11	[38.81]	[0.44]	0.74	0.72	0.21		.0079	
BL.92.2.5. Slash.19	40														
BL.92.2.5. Fresh.19	39	1.87	na	na	na	[40.89]	[0.42]	na	na	0.02	0.02	0.00	0.89	.0000	.0233
BL.92.2.5. Dec.19	39	20.72	na	na	na	[41.77]	[0.72]	na	na	0.05	0.05	0.02		.0004	
BL.92.2.5. O.19	29														
BL.92.2.5.10.19	29	512.20	14.21	5.34	31.11	5.09	0.19	[39.14]	[0.63]	0.84	0.81	0.45		.0156	
BL.92.2.5.20.19	19	422.97	13.40	3.23	12.90	2.99	0.11	[38.81]	[0.44]	0.72	0.70	0.22		.0074	
BL.92.2.5. Slash.20	11														
BL.92.2.5. Fresh.20	10	1.19	na	na	na	[40.89]	[0.42]	na	na	0.01	0.02	0.00	0.89	.0000	.0223
BL.92.2.5. Dec.20	10	17.52	na	na	na	[41.77]	[0.72]	na	na	0.04	0.05	0.02		.0003	
BL.92.2.5. O.20	0														
BL.92.2.5.10.20	0	547.72	11.57	7.89	28.79	4.79	0.16	[39.14]	[0.63]	0.90	0.84	0.47		.0150	
BL.92.2.5.20.20	-10	626.99	11.43	4.5	36.01	1.74	0.07	[38.81]	[0.44]	1.03	1.01	0.21		.0070	

Note: "Mean" %C and %N values were taken from sample site #14 only because site #16 was re-classified as a decomposing slash horizon upon re-examination

BL3 The seventeen year post harvest plot

Sample Number	Cm above B horizon boundary	Airdry wt (g)	% H2O, field-moist to ovendry	Root+wood wt (g)	>2mm gravel wt (g.)	%C in soil mean of 5 in [ ]	%N in soil X of 5 in [ ]	%C in roots mean of 5 in [ ]	%N in roots mean of 5 in [ ]	Bulk Density <2mm, airdry	Bulk Density <2mm, ovendry	Grams C/cm^2	Grams C/cm^2/ profile	Grams N/cm^2	Grams N/cm^2/ profile
BL.92.3. Slash.1															
BL.92.3. Fresh.1		0.00											1.24		.0407
BL.92.3. Dec.1	19	34.69			na	[32.92]	[0.70]	na	na	0.00	0.28	0.03		.0008	
BL.92.3. O.1															
BL.92.3.10.1	9	582.47	6.98	55.31	9.11	5.58	[0.22]	[40.18]	[0.71]	0.91	0.87	0.90		.0289	
BL.92.3.20.1	-1	482.84	10.31	na	19.49	3.99	[0.17]	[42.54]	[0.70]	0.78	0.75	0.31		.0131	
BL.92.3. Slash.2															
BL.92.3. Fresh.2	19.3	17.42	na	na	na	[38.40]	[0.55]	na	na	0.06	0.05	0.02	0.95	.0002	.0498
BL.92.3. Dec.2	19	0.72	na	na	na	[32.92]	[0.70]	na	na	0.01	0.00	0.00		.0000	
BL.92.3. O.2															
BL.92.3.10.2	9	846.33	5.29	0.00	8.02	3.06	[0.22]	[40.18]	[0.71]	1.13	1.11	0.35		.0247	
BL.92.3.20.2	-1	857.53	7.08	59.69	7.25	1.32	[0.17]	[42.54]	[0.70]	1.04	1.02	0.59		.0249	
BL.92.3. Slash.3															
BL.92.3. Fresh.3	19.1	0.00											1.11		.0410
BL.92.3. Dec.3	19	9.42	na	na	na	[32.92]	[0.70]	na	na	0.23	0.17	0.01		.0002	
BL.92.3. O.3															
BL.92.3.10.3	9	618.71	7.86	7.12	21.32	5.39	[0.22]	[40.18]	[0.71]	1.04	1.00	0.81		.0237	
BL.92.3.20.3	-1	599.69	11.90	2.97	28.73	4.89	[0.17]	[42.54]	[0.70]	1.00	0.71	0.49		.0172	
BL.92.3. Slash.4															
BL.92.3. Fresh.4	28.3	0.00											1.25		.0384
BL.92.3. Dec.4	28	2.32	na	na	na	[32.92]	[0.70]	na	na	0.02	0.00	0.00		.0000	
BL.92.3. O.4															
BL.92.3.10.4	18	598.63	7.11	5.07	49.74	6.31	[0.22]	[40.18]	[0.71]	0.96	0.92	0.84		.0216	
BL.92.3.20.4	8	573.52	11.74	2.30	17.06	6.01	[0.17]	[42.54]	[0.70]	0.98	0.79	0.60		.0167	
BL.92.3. Slash.5															
BL.92.3. Fresh.5	15	3.05	na	na	na	[38.40]	[0.55]	na	na	0.02	0.02	0.00	0.82	.0000	.0369
BL.92.3. Dec.5	12	73.16	na	na	na	44.22	[0.70]	na	na	0.08	0.05	0.06		.0012	
BL.92.3. O.5															
BL.92.3.10.5	2	534.59	8.32	25.73	0.00	8.85	[0.22]	43.19	0.51	0.62	0.59	0.73		.0189	
BL.92.3.20.5	-8	518.24	8.17	3.78	25.88	6.92	[0.17]	40.30	0.60	0.61	0.84	0.45		.0107	
BL.92.3. Slash.6															
BL.92.3. Fresh.6	38	21.88	na	na	na	[38.40]	[0.55]	na	na	0.10	0.10	0.02	1.21	.0003	.0281
BL.92.3. Dec.6	37.9	13.88	na	na	na	[32.92]	[0.70]	na	na	0.33	0.32	0.01		.0002	
BL.92.3. O.6															
BL.92.3.10.6	18	598.63	4.11	2.37	7.54	3.52	[0.22]	40.81	0.53	0.92	0.90	0.34		.0216	
BL.92.3.20.6	8	573.52	7.32	0.19	12.11	2.37	[0.17]	[42.54]	[0.70]	0.89	0.97	0.21		.0150	
BL.92.3. Slash.7															
BL.92.3. Fresh.7	26	18.75	na	na	na	[38.40]	[0.55]	na	na	0.05	0.04	0.02	1.09	.0003	.0483
BL.92.3. Dec.7	28	0.00	na	na	na	[32.92]	[0.70]	na	na			0.01		.0002	
BL.92.3. O.7															
BL.92.3.10.7	18	711.97	4.18	1.24	14.42	3.84	[0.22]	37.33	0.89	1.25	1.21	0.49		.0276	
BL.92.3.20.7	6	685.85	8.78	1.78	21.26	4.75	[0.17]	41.15	0.70	1.21	0.96	0.59		.0205	
BL.92.3. Slash.8															
BL.92.3. Fresh.8	25.5	5.80	na	na	na	[38.40]	[0.55]	na	na	0.03	0.03	0.01	1.16	.0001	.0358
BL.92.3. Dec.8	25	18.34	na	na	na	[32.92]	0.68	na	na	0.09	0.08	0.01		.0003	
BL.92.3. O.8															
BL.92.3.10.8	10	595.89	5.87	4.33	19.70	8.29	[0.22]	[40.18]	[0.71]	0.89	0.85	0.72		.0200	
BL.92.3.20.8	0	583.59	7.71	1.32	9.57	3.78	[0.17]	40.89	0.73	0.91	0.95	0.42		.0154	
BL.92.3. Slash.9															
BL.92.3. Fresh.9	23.2	37.99	na	na	na	[32.92]	[0.70]	na	na	0.45	0.42	0.03	1.24	.0006	.0480
BL.92.3. Dec.9	23	282.00	na	na	na	25.67	0.89	na	na	0.24	0.18	0.18		.0080	
BL.92.3. O.9	20														
BL.92.3.10.9	10	595.99	5.87	1.87	14.42	8.29	[0.22]	[40.18]	[0.71]	1.02	0.98	0.85		.0228	
BL.92.3.20.9	0	583.59	7.71	0.82	21.26	3.78	[0.17]	[42.54]	[0.70]	0.99	0.83	0.38		.0167	
BL.92.3. Slash.10															
BL.92.3. Fresh.10	20	41.21	na	na	na	[38.40]	[0.55]	na	na	0.10	0.09	0.04	0.90	.0005	.0440
BL.92.3. Dec.10	20	0.00	na	na	na	[32.92]	[0.70]	na	na						
BL.92.3. O.10															
BL.92.3.10.10	10	658.86	5.56	3.29	18.02	4.21	[0.22]	39.12	0.89	1.12	1.08	0.49		.0249	
BL.92.3.20.10	0	640.28	8.48	0.40	17.83	3.33	[0.17]	[42.54]	[0.70]	1.10	0.93	0.37		.0185	

BL3 The seventeen year post harvest plot

Plot															
BL.92.3. Slash.11															
BL.92.3. Fresh.11	19	15.38	na	na	na	42.66	0.68	na	na	0.01	0.01	0.01	1.03	.0002	.0408
BL.92.3. Dec.11	17	27.73	na	na	na	29.22	0.71	na	na	0.03	0.03	0.02		.0005	
BL.92.3. O.11															
BL.92.3.10.11	7	600.35	5.18	4.36	13.40	5.77	0.28	[40.16]	[0.71]	1.03	0.99	0.62		.0230	
BL.92.3.20.11	-3	578.29	8.48	1.32	13.22	3.60	0.17	41.26	0.70	0.99	1.07	0.37		.0169	
BL.92.3. Slash.12															
BL.92.3. Fresh.12	22	8.24	na	na	na	[38.40]	[0.55]	na	na	0.02	0.01	0.01	1.09	.0001	.0366
BL.92.3. Dec.12	22	0.00													
BL.92.3. O.12															
BL.92.3.10.12	12	584.94	5.58	3.01	21.81	6.55	[0.22]	40.54	0.93	0.99	0.95	0.67		.0220	
BL.92.3.20.12	2	564.78	8.97	1.71	7.36	4.16	0.17	44.94	0.76	0.98	0.93	0.42		.0167	
BL.92.3. Slash.13	21	0.00													
BL.92.3. Fresh.13	20	80.84	na	na	na	[32.92]	[0.70]	na	na	0.19	0.18	0.08		.0014	.0297
BL.92.3. Dec.13															
BL.92.3. O.13															
BL.92.3.10.13	10	567.17	6.00	4.17	10.94	5.74	[0.22]	[40.16]	[0.71]	0.97	0.93	0.59		.0216	
BL.92.3.20.13	0	550.84	7.95	3.10	143.25	3.57	0.17	[42.54]	[0.70]	0.71	0.73	0.28		.0124	
BL.92.3. Slash.14	26	12.25													
BL.92.3. Fresh.14	26	0.00	na	na	na	[38.40]	[0.55]	na	na	0.06	0.06	0.01	0.80	.0002	.0462
BL.92.3. Dec.14															
BL.92.3. O.14															
BL.92.3.10.14	16	440.59	4.54	0.72	0.00	4.50	[0.22]	[40.16]	[0.71]	0.78	0.75	0.35		.0171	
BL.92.3.20.14	6	430.49	7.07	1.88	16.23	3.07	0.17	[42.54]	[0.70]	0.73	0.97	0.24		.0125	
BL.92.3. Slash.15	18	20.67													
BL.92.3. Fresh.15	18	0.00	na	na	na	[38.40]	[0.55]	na	na	0.05	0.05	0.02	0.88	.0003	
BL.92.3. Dec.15															
BL.92.3. O.15															
BL.92.3.10.15	8	691.99	4.44	3.43	29.20	3.83	[0.22]	[40.16]	[0.71]	1.16	1.13	0.47		.0259	
BL.92.3.20.15	-2	668.49	8.10	2.60	0.00	3.20	0.17	[42.54]	[0.70]	1.17	1.05	0.40		.0201	
BL.92.3. Slash.16	22	27.16	na	na	na	47.88	0.65	na	na	0.03	0.02	0.03		.0004	
BL.92.3. Fresh.16	20	132.33	na	na	na	28.93	0.65	na	na	0.16	0.14	0.10	0.98	.0022	.0447
BL.92.3. Dec.16															
BL.92.3. O.16															
BL.92.3.10.16	10	658.52	6.74	2.60	30.11	3.89	0.18	[40.16]	[0.71]	1.10	1.07	0.45		.0245	
BL.92.3.20.16	0	645.59	9.15	1.54	56.55	3.81	0.17	[42.54]	[0.70]	1.04	0.85	0.41		.0176	
BL.92.3. Slash.17	15.2	20.05	na	na	na	39.08	0.62	na	na	0.03	0.03	0.02		.0003	
BL.92.3. Fresh.17	15	40.08	na	na	na	38.80	1.07	na	na	0.48	0.43	0.03	0.92	.0007	.0423
BL.92.3. Dec.17															
BL.92.3. O.17															
BL.92.3.10.17	5	610.04	9.30	4.92	15.81	4.94	0.20	[40.16]	[0.71]	1.04	1.00	0.55		.0234	
BL.92.3.20.17	-5	601.14	9.98	1.61	0.00	2.90	0.14	[42.54]	[0.70]	1.06	0.90	0.32		.0180	
BL.92.3. Slash.18	18.3	40.97	na	na	na	36.04	0.44	na	na	0.05	0.04	0.04		.0005	
BL.92.3. Fresh.18	18	37.01	na	na	na	23.42	0.77	na	na	0.30	0.26	0.03	1.02	.0006	.0418
BL.92.3. Dec.18															
BL.92.3. O.18															
BL.92.3.10.18	8	603.80	9.31	4.90	18.72	5.82	0.27	[40.16]	[0.71]	1.02	0.98	0.63		.0230	
BL.92.3.20.18	-2	605.43	8.14	2.62	19.67	2.99	0.14	[42.54]	[0.70]	1.03	1.00	0.33		.0176	
BL.92.3. Slash.19	12.8	37.45	na	na	na	[38.40]	[0.55]	na	na	0.05	0.04	0.03		.0005	
BL.92.3. Fresh.19	12	44.00	na	na	na	[32.92]	[0.70]	na	na	0.13	0.12	0.03	0.90	.0007	.0357
BL.92.3. Dec.19															
BL.92.3. O.19															
BL.92.3.10.19	2	518.64	11.97	4.53	21.90	5.74	[0.22]	[40.16]	[0.71]	0.87	0.93	0.53		.0196	
BL.92.3.20.19	-8	517.49	11.49	0.97	18.38	3.37	0.17	[42.54]	[0.70]	0.88	0.84	0.30		.0149	
BL.92.3. Slash.20	49	37.65	na	na	na	[38.40]	[0.55]	na	na	0.09	0.08	0.03		.0005	
BL.92.3. Fresh.20	49	0.00											0.86	.0006	.0485
BL.92.3. Dec.20															
BL.92.3. O.20															
BL.92.3.10.20	39	724.08	5.58	3.61	31.10	3.17	[0.22]	[40.16]	[0.71]	1.21	1.18	0.41		.0271	
BL.92.3.20.20	29	702.44	9.25	5.01	11.80	3.06	0.17	[42.54]	[0.70]	1.21	0.72	0.41		.0209	

BL4 The Seventy nine year post harvest plot

Sample Number	Cm above B horizon boundary	Airdry wt. (g.)	% H2O, field-moist to ovendry	Root+wood wt. (g)	>2mm gravel wt. (g)	%C in soil mean of 5 in []	%N in soil mean of 5 in []	%C in roots mean of 5 in []	%N in roots mean of 5 in []	Bulk Density <2mm, airdry	Bulk Density <2mm, ovendry	Grams C/cm^2	Grams C/cm^2 profile	Grams N/cm^2	grams N/cm^2 profile
BL92.4. Slash.1															
BL92.4. Fresh.1	37	86.57	na	na	na	40.50	0.39	na	na	0.06	0.07	0.07	1.39	.0009	.0546
BL92.4. Dec.1	31	229.38	na	na	na	[39.81]	[1.13]	na	na	0.09	0.08	0.22		.0062	
BL92.4. O.1	28	156.79	na	na	na	34.55	0.89	na	na	0.13	0.12	0.11		.0034	
BL92.4.10.1	18	436.58	9.96	10.15	0.00	8.37	0.35	43.51	[0.89]	0.76	0.72	0.55		.0236	
BL92.4.20.1	8	552.48	10.25	8.67	0.00	4.13	0.20	[43.35]	0.66	0.96	0.93	0.45		.0205	
BL92.4. Slash.2															
BL92.4. Fresh.2	48	16.65	na	na	na	[41.14]	[0.57]	na	na	0.04	0.04	0.02	1.04	.0002	.0450
BL92.4. Dec.2	46	29.93	na	na	na	28.64	1.37	na	na	0.04	0.03	0.03		.0008	
BL92.4. O.2	45	73.03	na	na	na	[28.10]	[0.89]	na	na	0.15	0.14	0.05		.0016	
BL92.4.10.2	35	540.82	9.63	1.52	16.85	8.60	0.29	[39.86]	[0.89]	0.92	0.88	0.62		.0271	
BL92.4.20.2	25	420.08	10.37	1.44	0.00	4.27	0.20	[43.35]	[0.67]	0.74	0.71	0.33		.0153	
BL92.4. Slash.3															
BL92.4. Fresh.3	26	1.97	na	na	na	[41.14]	[0.57]	na	na	0.02	0.02	0.00	1.18	.0000	.0466
BL92.4. Dec.3	25	66.84	na	na	na	44.08	1.29	na	na	0.17	0.15	0.07		.0019	
BL92.4. O.3	24	72.00	na	na	na	21.31	[0.89]	na	na	0.25	0.23	0.05		.0015	
BL92.4.10.3	14	473.73	12.65	6.59	28.25	7.29	0.33	41.36	0.94	0.76	0.74	0.61		.0237	
BL92.4.20.3	4	527.17	13.10	5.52	0.00	4.40	0.21	45.81	0.53	0.92	0.89	0.45		.0195	
BL92.4. Slash.4															
BL92.4. Fresh.4	33	25.04	na	na	na	39.90	0.60	na	na	0.03	0.03	0.02	1.14	.0003	.0493
BL92.4. Dec.4	27	165.47	na	na	na	[39.61]	[1.13]	na	na	0.07	0.06	0.16		.0045	
BL92.4. O.4	24	114.63	na	na	na	[26.10]	[0.89]	na	na	0.11	0.10	0.08		.0024	
BL92.4.10.4	14	426.17	13.95	3.77	0.00	6.04	0.29	41.49	0.94	0.74	0.72	0.48		.0223	
BL92.4.20.4	4	536.87	12.04	4.50	0.00	3.97	0.20	43.89	0.61	0.94	0.91	0.41		.0198	
BL92.4. Slash.5															
BL92.4. Fresh.5	36	36.01	na	na	na	[41.14]	[0.57]	na	na	0.03	0.03	0.04	1.17	.0005	.0407
BL92.4. Dec.5	31	166.12	na	na	na	[39.81]	[1.13]	na	na	0.08	0.07	0.16		.0045	
BL92.4. O.5	29	90.00	na	na	na	[26.10]	[0.89]	na	na	0.11	0.10	0.08		.0019	
BL92.4.10.5	19	472.94	10.15	1.92	70.73	7.65	[0.29]	[39.86]	[0.89]	0.71	0.67	0.57		.0209	
BL92.4.20.5	9	494.98	13.93	1.29	140.72	5.49	[0.20]	[43.35]	[0.67]	0.62	0.59	0.35		.0129	
BL92.4. Slash.6															
BL92.4. Fresh.6	40	35.28	na	na	na	[41.14]	[0.57]	na	na	0.04	0.04	0.03	2.00	.0005	.0667
BL92.4. Dec.6	35	364.30	na	na	na	[39.61]	[1.13]	na	na	0.16	0.16	0.35		.0099	
BL92.4. O.6	25	860.74	na	na	na	[26.10]	[0.89]	na	na	0.21	0.19	0.60		.0186	
BL92.4.10.6	15	424.73	13.21	1.95	39.89	8.46	[0.29]	[39.86]	[0.89]	0.67	0.64	0.59		.0200	
BL92.4.20.6	5	463.62	12.29	1.68	0.00	4.94	[0.20]	[43.35]	[0.67]	0.85	0.82	0.43		.0178	
BL92.4. Slash.7															
BL92.4. Fresh.7	28	38.36	na	na	na	[41.14]	[0.57]	na	na	0.05	0.04	0.04	1.39	.0005	.0572
BL92.4. Dec.7	24	182.63	na	na	na	[39.61]	[1.13]	na	na	0.10	0.09	0.16		.0044	
BL92.4. O.7	19	325.60	na	na	na	[26.10]	[0.89]	na	na	0.16	0.14	0.22		.0069	
BL92.4.10.7	9	505.91	11.75	7.82	0.00	7.04	0.24	[39.86]	0.74	0.88	0.85	0.67		.0268	
BL92.4.20.7	-1	517.09	11.35	2.45	12.04	3.21	0.20	40.17	0.81	0.89	0.86	0.30		.0184	
BL92.4. Slash.8															
BL92.4. Fresh.8	31	33.10	na	na	na	39.71	0.52	na	na	0.03	0.02	0.03	1.40	.0005	.0606
BL92.4. Dec.8	26	170.47	na	na	na	48.51	0.79	na	na	0.08	0.07	0.16		.0046	
BL92.4. O.8	15	515.36	na	na	na	38.76	[0.89]	na	na	0.11	0.11	0.35		.0110	
BL92.4.10.8	6	520.97	11.03	2.79	0.00	5.24	0.24	37.31	0.89	0.91	0.88	0.50		.0271	
BL92.4.20.8	-4	476.64	10.51	1.49	0.00	4.07	0.20	40.17	0.70	0.84	0.81	0.35		.0174	
BL92.4. Slash.9															
BL92.4. Fresh.9	37	3.40	na	na	na	44.44	0.76	na	na	0.02	0.02	0.00	1.15	.0000	.0482
BL92.4. Dec.9	33	150.07	na	na	na	36.05	0.91	na	na	0.10	0.09	0.14		.0041	
BL92.4. O.9	30	126.00	na	na	na	23.11	[0.89]	na	na	0.10	0.10	0.09		.0027	
BL92.4.10.9	20	387.50	14.76	4.32	0.00	6.11	0.27	35.71	0.86	0.66	0.65	0.44		.0204	
BL92.4.20.9	10	520.72	13.33	3.20	0.00	4.90	0.23	41.33	0.68	0.91	0.88	0.48		.0191	
BL92.4. Slash.10															
BL92.4. Fresh.10	36	8.30	na	na	na	[41.14]	[0.57]	na	na	0.01	0.01	0.01	1.26	.0001	.0556
BL92.4. Dec.10	30	162.67	na	na	na	43.79	1.27	na	na	0.07	0.06	0.16		.0050	
BL92.4. O.10	28	95.67	na	na	na	[28.10]	[0.89]	na	na	0.15	0.14	0.06		.0020	
BL92.4.10.10	18	544.95	12.17	3.81	0.00	6.03	0.27	[39.86]	0.93	0.95	0.93	0.60		.0284	
BL92.4.20.10	8	559.54	11.00	1.33	0.00	4.04	0.19	43.86	0.65	0.98	0.96	0.41		.0203	

BL5 The Old Growth Site

Sample Number	Cm above B horizon boundary	Airdry wt. (g.)	% H2O, field-moist to ovendry	Root+wood wt (g.)	>2mm gravel wt. (g.)	%C in soil (mean of 5 in [ ])	%N in soil (mean of 5 in [ ])	%C in roots (mean of 5 in [ ])	%N in roots (mean of 5 in [ ])	Bulk Density <2mm, airdry	Bulk Density <2mm, ovendry	Grams C/ cm^2	Grams C/cm^2 profile	Grams N/ cm^2	Grams N/ cm^2 profile
BL.92.5.Slash.1															
BL.92.5.Fresh.1	15	15.15	na	na	na	[46.37]	[0.86]		na	0.02	0.02	0.02	0.73	0.0003	0.0340
BL.92.5.Dec.1	9	96.35	na	na	na	[38.08]	[1.01]		na	0.04	0.03	0.08		0.0023	
BL.92.5.O.1	6	247.51	na	na	na	[25.53]	[0.69]		na	0.20	0.18	0.15		0.0041	
BL.92.5.10.1	-4	432.20	15.00	6.08	22.44	3.41	[0.20]	[29.67]	[0.71]	0.71	0.69	0.27		0.0153	
BL.92.5.20.1	-14	440.81	15.74	3.41	20.86	2.49	[0.16]	[33.05]	[0.61]	0.73	0.71	0.20		0.0119	
BL.92.5.Slash.2															
BL.92.5.Fresh.2	30	41.37	na	na	na	[46.37]	[0.86]		na	0.05	0.05	0.05	1.44	0.0009	0.0451
BL.92.5.Dec.2	26	139.51	na	na	na	[38.08]	[1.01]		na	0.08	0.07	0.12		0.0034	
BL.92.5.O.2	22	460.57	na	na	na	[25.53]	[0.69]		na	0.28	0.25	0.28		0.0077	
BL.92.5.10.2	12	470.59	16.13	2.31	15.78	5.50	[0.20]	[29.67]	[0.71]	0.80	0.77	0.45		0.0166	
BL.92.5.20.2	2	601.80	17.65	7.25	22.38	4.88	[0.16]	[33.05]	[0.61]	1.01	0.98	0.53		0.0166	
BL.92.5.Slash.3															
BL.92.5.Fresh.3	12	26.11	na	na	na	[46.37]	[0.86]		na	0.03	0.03	0.03	1.02	0.0005	0.0458
BL.92.5.Dec.3	9	199.29	na	na	na	[38.08]	[1.01]		na	0.16	0.14	0.17		0.0049	
BL.92.5.O.3	4	441.97	na	na	na	[25.53]	[0.69]		na	0.21	0.19	0.27		0.0074	
BL.92.5.10.3	-6	492.59	14.14	3.19	0.00	3.49	[0.20]	[29.67]	[0.71]	0.86	0.84	0.32		0.0180	
BL.92.5.20.3	-16	544.12	15.04	0.55	0.00	2.34	[0.16]	[33.05]	[0.61]	0.96	0.94	0.23		0.0151	
BL.92.5.Slash.4															
BL.92.5.Fresh.4	12	12.09	na	na	na	[46.37]	[0.86]		na	0.01	0.05	0.01	1.21	0.0002	0.0384
BL.92.5.Dec.4	10	44.09	na	na	na	[38.08]	[1.01]		na	0.05	0.05	0.04		0.0011	
BL.92.5.O.4	9	456.30	na	na	na	[25.53]	[0.69]		na	1.10	1.00	0.28		0.0076	
BL.92.5.10.4	-1	388.18	12.37	9.24	0.00	8.14	[0.20]	[29.67]	[0.71]	0.67	0.53	0.60		0.0147	
BL.92.5.20.4	-11	546.25	15.43	4.41	26.52	2.79	[0.16]	[33.05]	[0.61]	0.91	0.88	0.28		0.0147	
BL.92.5.Slash.5															
BL.92.5.Fresh.5	26	7.55	na	na	na	[46.37]	[0.86]		na	0.01	0.02	0.01	1.15	0.0002	0.0424
BL.92.5.Dec.5	24	81.55	na	na	na	[38.08]	[1.01]		na	0.10	0.09	0.07		0.0020	
BL.92.5.O.5	16	678.88	na	na	na	[25.53]	[0.69]		na	0.20	0.19	0.42		0.0113	
BL.92.5.10.5	6	484.66	16.74	1.98	44.82	5.11	[0.20]	[29.67]	[0.71]	0.77	0.74	0.40		0.0160	
BL.92.5.20.5	-4	513.99	18.54	1.19	49.71	3.04	[0.16]	[33.05]	[0.61]	0.82	0.79	0.26		0.0129	
BL.92.5.Slash.6															
BL.92.5.Fresh.6	10.7	17.70	na	na	na	[46.37]	[0.86]		na	0.02	0.02	0.02	0.78	0.0004	0.0330
BL.92.5.Dec.6	7.7	56.17	na	na	na	[36.08]	[1.01]		na	0.05	0.04	0.05		0.0014	
BL.92.5.O.6	2	182.83	na	na	na	[25.53]	[0.69]		na	0.16	0.15	0.11		0.0031	
BL.92.5.10.6	-5	412.46	17.68	3.78	23.40	4.86	[0.20]	[29.67]	[0.71]	0.68	0.66	0.35		0.0144	
BL.92.5.20.6	-15	522.10	15.93	1.80	26.24	2.74	[0.16]	[33.05]	[0.61]	0.87	0.84	0.25		0.0138	
BL.92.5.Slash.7															
BL.92.5.Fresh.7	14	34.66	na	na	na	50.16	0.46		na	0.04	0.08	0.04	1.00	0.0007	0.0414
BL.92.5.Dec.7	12	140.38	na	na	na	37.05	0.68		na	0.17	0.15	0.12		0.0034	
BL.92.5.O.7	9	242.15	na	na	na	10.43	0.29		na	0.19	0.18	0.15		0.0040	
BL.92.5.10.7	-7	517.74	11.29	4.56	18.52	4.25	0.20	27.63	0.67	0.83	0.80	0.39		0.0184	
BL.92.5.20.7	-11	551.58	15.51	1.07	16.48	3.13	0.16	[33.05]	0.70	0.82	0.79	0.30		0.0148	
BL.92.5.Slash.8															
BL.92.5.Fresh.8	7	24.81	na	na	na	[46.37]	[0.86]		na	0.03	0.04	0.03	0.78	0.0005	0.0363
BL.92.5.Dec.8	5	104.27	na	na	na	[36.08]	[1.01]		na	0.13	0.11	0.09		0.0025	
BL.92.5.O.8	3	187.77	na	na	na	[25.53]	[0.69]		na	0.20	0.18	0.10		0.0028	
BL.92.5.10.8	-7	473.50	14.52	3.76	0.00	3.60	[0.20]	[29.67]	[0.71]	0.83	0.80	0.32		0.0174	
BL.92.5.20.8	-17	465.35	14.92	2.38	0.00	2.82	[0.16]	[33.05]	[0.61]	0.82	0.79	0.24		0.0130	
BL.92.5.Slash.9															
BL.92.5.Fresh.9	25	37.18	na	na	na	[46.37]	[0.86]		na	0.04	0.08	0.04	1.21	0.0008	0.0418
BL.92.5.Dec.9	25	0.00													
BL.92.5.O.9	20	673.89	na	na	na	[25.53]	[0.69]		na	0.32	0.30	0.41		0.0113	
BL.92.5.10.9	10	429.90	11.74	3.91	9.70	5.74	[0.20]	[29.67]	[0.71]	0.73	0.70	0.44		0.0155	
BL.92.5.20.9	0	502.90	13.70	4.65	0.00	3.22	[0.16]	[33.05]	[0.61]	0.88	0.84	0.31		0.0142	
BL.92.5.Slash.10															
BL.92.5.Fresh.10	22.5	27.23	na	na	na	[46.37]	[0.86]		na	0.03	0.06	0.03	0.78	0.0006	0.0278
BL.92.5.Dec.10	21	19.50	na	na	na	[36.08]	[1.01]		na	0.03	0.03	0.02		0.0005	
BL.92.5.O.10	21	0.00													
BL.92.5.10.10	11	417.39	14.47	7.50	18.81	4.16	[0.20]	[29.67]	[0.71]	0.69	0.66	0.33		0.0150	
BL.92.5.20.10	1	411.63	13.12	9.07	14.51	5.17	[0.16]	[33.05]	[0.61]	0.68	0.65	0.41		0.0117	

BL5 The Old Growth Site

Sample															
BL.92.5.Slash.11	8.5	28.11	na	na	na	[46.37]	[0.86]	na	na	0.03	0.04	0.03		0.0006	0.0325
BL.92.5.Fresh.11	6	173.85	na	na	na	[36.08]	[1.01]	na	na	0.17	0.15	0.15	0.72	0.0042	
BL.92.5.Dec.11	6	0.00													
BL.92.5.O.11	-4	419.92	11.79	8.65	15.92	3.80	[0.20]	[29.67]	[0.71]	0.70	0.67	0.31		0.0153	
BL.92.5.10.11	-14	451.74	14.06	2.60	10.00	2.78	[0.16]	[33.05]	[0.61]	0.77	0.74	0.23		0.0124	
BL.92.5.20.11															
BL.92.5.Slash.12	29	99.92	na	na	na	[46.37]	[0.86]	na	na	0.06	0.06	0.11		0.0021	0.0380
BL.92.5.Fresh.12	23	168.97	na	na	na	[36.08]	[1.01]	na	na	0.06	0.06	0.15	1.17	0.0041	
BL.92.5.Dec.12	18	221.64	na	na	na	[25.53]	[0.69]	na	na	0.11	0.10	0.14		0.0037	
BL.92.5.O.12	8	444.67	12.59	8.51	0.00	5.66	[0.20]	[29.67]	[0.71]	0.77	0.73	0.48		0.0168	
BL.92.5.10.12	-2	493.41	14.26	3.35	92.72	3.93	[0.16]	[33.05]	[0.61]	0.70	0.67	0.29		0.0113	
BL.92.5.20.12															
BL.92.5.Slash.13	27	56.13	na	na	na	42.37	0.55	na	na	0.07	0.06	0.06		0.0012	0.0386
BL.92.5.Fresh.13	24	25.89	na	na	na	51.18	1.38	na	na	0.02	0.02	0.02	1.10	0.0006	
BL.92.5.Dec.13	16	550.79	na	na	na	39.24	0.77	na	na	0.17	0.15	0.34		0.0092	
BL.92.5.O.13	6	469.56	15.09	4.85	0.00	4.68	0.20	31.27	0.64	0.82	0.78	0.41		0.0174	
BL.92.5.10.13	-4	376.25	15.45	2.71	13.20	3.89	0.19	38.80	0.73	0.64	0.61	0.26		0.0102	
BL.92.5.20.13															
BL.92.5.Slash.14	28	24.10	na	na	na	[46.37]	[0.86]	na	na	0.03	0.03	0.03		0.0005	0.0361
BL.92.5.Fresh.14	25	115.57	na	na	na	[36.08]	[1.01]	na	na	0.09	0.10	0.10	0.76	0.0028	
BL.92.5.Dec.14	25	0.00													
BL.92.5.O.14	15	460.43	13.00	5.75	15.66	4.87	[0.20]	[29.67]	[0.71]	0.77	0.74	0.41		0.0165	
BL.92.5.10.14	5	578.92	15.45	3.43	0.00	2.00	[0.16]	[33.05]	[0.61]	1.01	0.98	0.22		0.0162	
BL.92.5.20.14															
BL.92.5.Slash.15	19	24.00	na	na	na	45.38	1.17	na	na	0.03	0.11	0.03		0.0005	0.0384
BL.92.5.Fresh.15	16	205.27	na	na	na	18.37	0.65	na	na	0.16	0.15	0.18	1.02	0.0050	
BL.92.5.Dec.15	16	0.00													
BL.92.5.O.15	6	570.04	9.27	17.29	19.25	5.64	0.22	33.18	0.91	0.94	0.90	0.62		0.0214	
BL.92.5.10.15	-4	408.17	13.51	3.44	0.00	2.50	0.15	35.59	0.53	0.71	0.69	0.20		0.0115	
BL.92.5.20.15															
BL.92.5.Slash.16	25.5	47.85	na	na	na	43.66	1.20	na	na	0.06	0.10	0.05		0.0010	0.0367
BL.92.5.Fresh.16	24	86.24	na	na	na	25.96	1.24	na	na	0.14	0.12	0.07	1.00	0.0021	
BL.92.5.Dec.16	24	0.00													
BL.92.5.O.16	14	475.88	13.23	7.41	0.00	5.25	0.21	33.18	0.58	0.83	0.79	0.47		0.0178	
BL.92.5.10.16	4	564.67	14.88	2.67	0.00	3.66	0.17	31.64	0.69	0.99	0.95	0.40		0.0158	
BL.92.5.20.16															
BL.92.5.Slash.17	25.3	105.01	na	na	na	[46.37]	[0.86]	na	na	0.13	0.15	0.12		0.0022	0.0416
BL.92.5.Fresh.17	21	98.73	na	na	na	[36.08]	[1.01]	na	na	0.06	0.06	0.09	1.29	0.0024	
BL.92.5.Dec.17	15	582.39	na	na	na	[25.53]	[0.69]	na	na	0.23	0.21	0.35		0.0094	
BL.92.5.O.17	5	454.21	14.71	1.68	0.00	6.04	[0.20]	[29.67]	[0.71]	0.80	0.76	0.49		0.0165	
BL.92.5.10.17	-2	401.35	15.24	1.05	0.00	3.49	[0.16]	[33.05]	[0.61]	0.71	0.67	0.25		0.0112	
BL.92.5.20.17															
BL.92.5.Slash.18	25	71.09	na	na	na	50.29	0.90	na	na	0.09	0.06	0.08		0.0015	0.0388
BL.92.5.Fresh.18	20	178.58	na	na	na	47.83	1.10	na	na	0.09	0.08	0.16	1.01	0.0044	
BL.92.5.Dec.18	18	124.88	na	na	na	26.92	1.03	na	na	0.15	0.14	0.08		0.0021	
BL.92.5.O.18	8	489.53	12.65	14.65	29.47	4.68	0.19	30.37	0.78	0.78	0.75	0.44		0.0179	
BL.92.5.10.18	-2	445.19	19.00	9.40	0.00	2.62	0.12	30.28	0.41	0.77	0.74	0.26		0.0130	
BL.92.5.20.18															
BL.92.5.Slash.19	18	72.96	na	na	na	[46.37]	[0.86]	na	na	0.09	0.05	0.08		0.0015	0.0415
BL.92.5.Fresh.19	16	124.04	na	na	na	[36.08]	[1.01]	na	na	0.15	0.13	0.11	0.73	0.0030	
BL.92.5.Dec.19	13	0.00													
BL.92.5.O.19	3	565.24	13.43	2.48	0.00	3.23	[0.20]	[29.67]	[0.71]	0.99	0.96	0.33		0.0206	
BL.92.5.10.19	-7	589.70	13.96	1.03	0.00	1.94	[0.16]	[33.05]	[0.61]	1.04	1.01	0.21		0.0164	
BL.92.5.20.19															
BL.92.5.Slash.20	24.5	43.02	na	na	na	[46.37]	[0.86]	na	na	0.05	0.05	0.05		0.0009	0.0398
BL.92.5.Fresh.20	22	285.03	na	na	na	[36.08]	[1.01]	na	na	0.27	0.24	0.25	1.17	0.0069	
BL.92.5.Dec.20	20	50.72	na	na	na	[25.53]	[0.69]	na	na	0.06	0.06	0.03		0.0008	
BL.92.5.O.20	10	488.24	11.77	1.76	0.00	5.16	[0.20]	[29.67]	[0.71]	0.86	0.82	0.45		0.0177	
BL.92.5.20.20	0	477.02	14.45	2.26	0.00	4.49	[0.16]	[33.05]	[0.61]	0.84	0.80	0.39		0.0133	

Note: Mean %C and %N values for O horizons based on 3 samples