

Ambio

Electronic Supplementary Material

This supplementary material has not been peer reviewed

Title: **Soil organic carbon storage in a mountain permafrost area of Central Asia (High Altai, Russia)**

Table S1. Transect and profile codes, geographic coordinates, topographic parameters, soil profile depth, land cover class, mean height of upper vegetation stratum, and percent cover of plant functional types and mineral grounds.

Transect/ Profile	Latitude N (degrees, minutes)	Longitude E (degrees, minutes)	Elevation (m)	Slope (degrees)	Aspect (degrees)	Profile Depth (cm)	Land Cover Class	Height Vegetation ^c (m)	Deciduous coniferous Larch (%)	Evergreen coniferous Pine (%)	Deciduous Shrub (%)	Evergreen Dwarf Shrub (%)	Graminoid (%)	Forb (%)	Moss (%)	Lichen (%)	Litter (%)	Bare Ground (%)	Large Stones (%)
AK T1-1	50 04.891	87 47.119	2225	30	335	0	Bare	0,30						<1				29	70
AK T1-2	50 04.951	87 47.046	2175	3	335	21	Subalpine forest	8,00	20	1		70	2		25	25	20	0	1
AK T1-3	50 05.015	87 46.976	2130	2	335	75	Shrub wetland	1,00			65		40	10	60			0	0
AK T1-4	50 05.080	87 46.886	2115	1	315	12	Patchy vegetation	0,05					3	2				45	50
AK T1-5	50 05.140	87 46.814	2130	2	180	25	Subalp/Mtn forest ^b	12,0	10	50		20	3	15	25	20		0	0
AK T1-6	50 05.203	87 46.735	2170	4	135	26	Subalpine forest	3,00		10	10	2	20	20			40	0	0
AK T1-7	50 05.263	87 46.632	2245	25	115	20	Alpine tundra	7,00	10			1	40	30			15	5	0
AK T1-8	50 05.310	87 46.578	2310	35	135	21	Alpine tundra	0,20			5	3	20	5		1	20	10	10
AK T1-9	50 05.387	87 46.482	2410	20	90	29	Patchy vegetation	0,25			5		3	1			3	30	60
AK T1-10	50 05.450	87 46.416	2485	20	135	0	Bare	0,20			<1	<1			<1	10		0	99
AK T1-11	50 05.519	87 46.339	2570	20	180	23	Alpine tundra	0,05				25	10	5	1	2	20	1	15
AK T2-1	50 04.190	87 45.572	2365	0	none	8	Patchy vegetation	0,20			3	4			1		3	55	35
AK T2-2	50 04.244	87 45.681	2320	25	45	19	Patchy vegetation	3,50		10		5				1	5	25	65
AK T2-3	50 04.288	87 45.767	2285	9	45	29	Subalpine forest	7,00		20	30	2	5		10	50	10	0	5
AK T2-4	50 04.331	87 45.873	2245	30	360	40	Subalpine forest	1,50	3	3	50	3	2	1	50		20	0	0
AK T2-5	50 04.375	87 45.977	2215	10	90	8	Patchy vegetation	3,00		10	70	1		1	1	1	90	0	10
AK T2-6	50 04.425	87 46.082	2205	0	none	13	Patchy vegetation	6,00	20	5	3	15		5	3	3	50	5	30
AK T2-7	50 04.463	87 46.187	2195	15	115	10	Patchy vegetation	0,10			5			3	1		1	30	65
AK T3-1	50 05.420	87 47.173	2095	1	45	6	Bare	0,05						<1	1			49	50
AK T3-2	50 05.497	87 47.143	2115	30	160	39	Subalp/Mtn forest ^b	13,0	40	10	1	5	75	25			3	0	0
AK T3-3	50 05.575	87 47.111	2155	6	180	21	Subalpine forest	10,0	40	2	25		50	15			5	0	0
AK T3-4	50 05.654	87 47.074	2220	35	135	18	Alpine tundra	0,70					40	50			20	0	0
AK T3-5	50 05.729	87 47.039	2290	30	160	35	Alpine tundra	0,70			10		30	30			20	0	0
AK T3-6	50 05.808	87 47.008	2345	0	none	12	Alpine tundra	0,20			5	20	30	5		1	10	10	30
AK T3-7	50 05.887	87 46.982	2360	5	115	18	Alpine tundra	0,30			80	1	10	1		2	10	0	0
AK T4-1	50 09.310	87 49.640	1670	4	70	32	Steppe forest	12,0	50				60	20			20	0	0
AK T4-2	50 09.362	87 49.628	1685	17	160	12	Steppe grassland	0,20			15		50	15		2	5	15	15
AK T4-3	50 09.416	87 49.617	1710	15	135	48	Steppe grassland	0,25			2		60	1		1	3	30	3
AK T4-4	50 09.469	87 49.604	1735	22	135	28	Steppe grassland	0,25				5	50	2		3	5	15	30
AK T4-5	50 09.512	87 49.598	1750	5	135	33	Steppe grassland	0,25					80	15		3	2	0	5
AK T4-6	50 09.573	87 49.595	1750	15	335	26	Steppe forest	10,0	60		5	5	10	1	60	1	20	0	0
AK T4-7	50 09.615	87 49.487	1720	5	360	38	Steppe forest	8,00	20		25		15	3	40		25	0	0
AK T5-1	50 09.270	87 49.504	1670	11	360	29	Steppe forest	12,0	30			1	50	15	40		30	0	0
AK T5-2	50 09.219	87 49.563	1680	2	335	>110 ^a	Steppe forest	10,0	30		10	10	30	5	75	1	10	0	0
AK T5-3	50 09.181	87 49.607	1680	2	315	24	Steppe grassland	7,00	10		5		75	10			10	0	0
AK T5-4	50 09.130	87 49.662	1670	4	90	>76 ^a	Steppe grassland	0,15				3	70	10			20	2	0
AK T5-5	50 09.094	87 49.699	1665	7	160	50	Steppe grassland	0,20					50	5		2	20	20	15
AK T5-6	50 09.049	87 49.748	1660	10	115	36	Steppe grassland	0,15				5	40	3		3	3	40	10
AK T5-7	50 09.008	87 49.789	1655	2	315	>96 ^a	Steppe grassland	0,50			10		70	5			10	0	0
^a Maximum soil depth not reached at three sites																			
^b Subalpine forest sites used as default sites for the Mountain forest class																			
^c Value indicates mean height of the upper vegetation stratum (even when sparse)																			