

Supplementary Material

Tab. S1 - Brief description of the study areas. (*): S = spruce, As = aspen, B = birch, P = pine; (**): The following age classes are used: 20 years for coniferous species, 10 years for deciduous species.

No.	Area (ha)	Species composition of the stand before logging*	Age class**	Average stock per 1 ha (m ³)	Year of logging	Year after logging
1	2.2	8S1B1P	7	163		
2	16.0	5S1P4B	6	240	-	Untouched
3	6.2	9S1B	7	190		
4	15.3	3S5B2As+P	7	297		
5	19.3	5S1P4B+As	6	314		
6	15.9	3S5B2As	7	177	2018	1
7	20.7	4S6B+As	7	128		
8	26.2	8S1B1P	7	151		
9	31.7	8S1B1P	7	163		
10	19.8	5B3As2S+P	7	328		
11	25.6	4B2As2S+P	8	304	2017	2
12	24.8	8S2B+P	7	152		
13	16.3	4S3As3B+P	7	277		
14	29.5	5S3As2B+P	7	215	2016	3
15	25.1	9S1B+As, P	7	113		
16	19.4	9S1B	7	130		
17	16.3	3As3B3S1P	7	291	2015	4
18	20.4	3S5B2As	8	329		
19	16.6	2S5B3As+P	8	301	2014	5
20	39.6	9S1B	7	190		
21	9.2	5B3As2S+P	7	208	2013	6
22	32.1	8S2P + B	8	89	2012	7
23	21.3	5S3As1P1B	7	169	2010	9
24	16.0	5S1P4B	6	240	2006	13
25	13.0	8S1P1B	9	190	2004	15
26	27.0	5S3P2B	9	150		

Tab. S2 - Changes in the composition of plant cover in different years after logging. (GSL): Grass-shrub layer; (ML): Moss layer; (*): Herbs were divided into two groups: graminoid and motley grass. Graminoid includes a bio-morphological group of plants with narrow and linear leaves, turf and long-root forms. They are members of the *Poaceae*, *Cyperaceae*, *Typhaceae* and *Juncaceae* families. Motley grass included all other representatives of the herbaceous group.

Years after logging	Site	Total no. of species	Average projective coverage (%)		Including bio-morphological groups (units/%)		Including ecological and cenotic groups (units/%)				
			GSL	ML	shrubs	herbage *		forest	meadow	wetlands	weed ruderal
						graminoid	motley grass				
Un-touched	Control	23	70.8	82.6	5/22	4/17	14/61	18/79	1/4	3/13	1/4
1	Tracks	6	4.4	2.6	1/14	3/14	2/72	3/50	-	1/17	2/33
	Between tracks	16	8.1	4.7	3/9	4/19	9/72	9/56	2/14	3/18	2/14
	Cutting strips	35	67.7	71.2	3/12	7/15	25/73	25/71	3/9	5/14	2/6
2	Tracks	23	9.9	17.4	1/4	4/18	18/78	12/52	4/17	2/9	5/22
	Between tracks	41	18.2	10.5	3/7	6/15	32/78	23/56	7/17	4/10	7/17
	Cutting strips	33	60.0	50.6	5/15	4/12	24/72	25/76	3/9	2/6	3/9
3	Tracks	23	16.2	21.5	2/9	6/26	15/65	9/39	2/9	8/35	4/17
	Between tracks	37	23.4	26.2	5/13	5/13	27/74	18/49	5/13	8/22	6/16
	Cutting strips	27	53.1	58.9	6/22	4/15	17/63	21/78	-	3/11	3/11
4	Tracks	18	52.8	32.8	1/5	5/28	12/67	7/39	2/11	5/28	4/22
	Between tracks	25	52.3	26.3	2/8	6/24	17/68	12/48	4/16	5/20	4/16
	Cutting strips	11	67.7	48.6	3/28	4/36	4/36	8/72	1/10	-	2/18
5	Tracks	16	35.7	25.6	3/19	4/25	9/56	9/56	-	5/31	2/13
	Between tracks	29	35.4	29.8	3/10	7/24	19/66	16/56	5/17	5/17	3/10
	Cutting strips	29	60.1	66.1	3/10	4/14	22/76	21/73	4/14	1/3	3/10
6	Tracks	24	51.5	9.0	1/4	3/13	20/83	18/75	2/8	-	4/17
	Between tracks	30	65.0	11.3	3/10	3/10	24/80	20/66	5/17	-	5/17
	Cutting strips	32	78.7	56.6	4/12	4/12	24/76	24/76	4/12	-	4/12
7	Tracks	9	45.3	52.7	2/22	3/33	4/45	2/22	-	5/56	2/22
	Between tracks	10	31.1	58.6	3/30	3/30	4/40	4/40	-	4/40	2/20
	Cutting strips	13	58.0	70.6	4/31	5/38	4/31	5/38	1/8	5/38	2/16
9	Tracks	7	54.5	44.2	1/15	4/57	2/28	2/28	-	3/44	2/28
	Between tracks	8	43.3	60.0	2/25	4/50	2/25	3/37	-	3/37	2/25
	Cutting strips	10	63.3	70.1	2/20	3/30	5/50	6/60	-	2/20	2/20
13	Tracks	18	53.7	59.3	3/17	7/39	8/44	8/44	1/6	6/33	3/17
	Between tracks	21	55.0	67.7	3/14	5/24	13/62	12/57	2/10	4/19	3/14
	Cutting strips	17	69.0	72.0	4/24	5/29	8/47	12/71	-	3/17	2/12
15	Tracks	23	60.3	64.0	4/17	5/22	14/61	13/57	1/4	6/26	3/13
	Between tracks	28	59.8	69.0	5/18	5/18	18/64	18/64	2/7	5/18	3/11
	Cutting strips	21	69.2	75.4	4/19	3/14	14/67	17/80	-	2/10	2/10

Tab. S3 - Statistical parameters of the undergrowth in different years after logging. (*): S = spruce, As = aspen, B = birch, P = pine.

Years after logging	Site	Mean	Standard deviation	Coefficient of variation (%)	Species composition* (%)
Untouched	Control	2400	1472	61.7	85S13B1P1As
	Tracks	-	-	-	-
1	Between tracks	-	-	-	-
	Cutting strips	5667	5417	95.5	76S14B10As
	Tracks	480	1081	255	98As2S
2	Between tracks	676	1065	157.0	61B30As9S
	Cutting strips	12080	13004	107.6	48As32S20B
	Tracks	1307	1689	129.0	51B46As3S
3	Between tracks	2180	3520	161.2	45B37As18S
	Cutting strips	10860	8504	78.3	41As34S25B
	Tracks	5973	3772	63.2	80As12S8B
4	Between tracks	5520	3831	69.4	81As13B6S
	Cutting strips	22187	8770	39.5	73As24S3B
	Tracks	4729	3850	81.4	53B43As4S
5	Between tracks	4551	3820	83.9	62B30As8S
	Cutting strips	22044	11620	52.7	39As44B17S
	Tracks	9387	3830	40.8	90As12B
6	Between tracks	10107	4086	40.4	88As12B
	Cutting strips	33387	12567	37.6	95As4B1S
	Tracks	2907	2910	100.0	58B38S4P
7	Between tracks	14240	7640	53.6	73B25S1P
	Cutting strips	25760	14246	55.3	61B39S
	Tracks	4427	2340	52.8	49B30As21S
9	Between tracks	7627	3010	39.4	59B27As13S
	Cutting strips	18507	4216	22.8	58B29S13Asc
	Tracks	4347	1947	44.8	69B23S8P
13	Between tracks	8640	3174	36.7	74B15P11S
	Cutting strips	14747	5235	35.5	68B22S10P
	Tracks	4120	2096	50.9	46As27B18S5P
15	Between tracks	7760	2383	30.7	56As26B13S5P
	Cutting strips	11750	3566	30.3	39As23B24S14P
<i>Test</i>	<i>F-value</i>	37.30	-	-	-
	<i>P-value</i>	<0.001	-	-	-