

Table S3. Best linear regression models of richness of soil biota.

FINLAND				ESTONIA					
variables	R2	R2adj,cumul	F-value	P-value	variables	R2	R2adj,cumul	F-value	P-value
<b>1 Fungi richness</b>									
Herb cover	0.307	0.289	17.30	0.001	<i>P. sylvestris</i> BA	0.644	0.634	-63.29	<0.001
Tree BA	0.119	0.397	-7.92	0.007	Tree richness	0.152	0.783	25.21	<0.001
Understorey richness	0.089	0.476	6.80	0.014	<i>P. tremula</i> BA	0.027	0.806	4.99	0.036
Soil C/N ratio	0.045	0.512	-3.73	0.058	Proportion of EcM trees	0.019	0.822	-3.93	0.042
<i>P. sylvestris</i> BA	0.040	0.544	3.50	0.073					
<b>1.1 EcM fungi richness</b>									
<i>A. glutinosa</i> BA	0.272	0.254	-14.60	0.003	<i>P. sylvestris</i> BA	0.535	0.522	-40.28	<0.001
Soil pH(KCl)	0.225	0.471	16.98	0.001	<i>A. glutinosa</i> BA	0.116	0.631	-11.35	0.003
Tree diversity (Shannon index)	0.131	0.598	13.05	0.002	Understorey richness	0.045	0.669	4.93	0.031
<i>P. abies</i> BA	0.028	0.618	2.94	0.109	Soil Ca concentration	0.048	0.713	5.99	0.019
Soil P concentration	0.019	0.629	-2.04	0.161					
PCNM1	0.056	0.684	7.12	0.018					
<b>1.2 Mycoparasite richness</b>									
PCNM1	0.233	0.213	11.82	0.001	Soil pH(KCl)	0.075	0.048	-2.83	0.084
<i>L. sibirica</i> BA	0.048	0.242	-2.51	0.108	Proportion of EcM trees	0.072	0.096	-2.86	0.106
Herb cover	0.073	0.300	4.15	0.059					
<b>1.3 Plant pathogen richness</b>									
Herb cover	0.436	0.422	30.16	<0.001	Soil C/N ratio	0.637	0.627	-61.47	<0.001
Soil C/N ratio	0.123	0.536	-10.61	0.002	Proportion of EcM trees	0.092	0.713	-11.47	0.004
PCNM1	0.025	0.550	2.22	0.156	<i>P. tremula</i> BA	0.014	0.719	1.79	0.197
Soil N concentration	0.044	0.587	4.25	0.041	Soil pH(KCl)	0.018	0.731	2.40	0.136
Coppice amount	0.023	0.601	-2.27	0.159	Tree BA	0.027	0.754	-3.98	0.060
Tree BA	0.049	0.647	-5.53	0.023	PCNM1	0.025	0.775	4.00	0.068
<b>1.4 Saprotroph richness</b>									
Tree BA	0.319	0.301	-18.25	0.001	Tree richness	0.422	0.406	25.60	<0.001
Soil N concentration	0.099	0.387	6.45	0.021	<i>P. sylvestris</i> BA	0.106	0.501	-7.67	0.017
<i>P. abies</i> BA	0.123	0.504	-9.94	0.004	Soil pH(KCl)	0.044	0.534	-3.38	0.070
Soil C/N ratio	0.060	0.556	-5.37	0.020	Soil Ca concentration	0.064	0.591	5.63	0.033
<i>P. sylvestris</i> BA	0.033	0.581	3.13	0.085					

**2 Cercozoa richness**

Herb cover	0.183	0.162	8.72	0.006	Soil C/N ratio	0.337	0.318	-17.75	0.001
Soil pH(KCl)	0.163	0.311	9.46	0.010	Soil Ca concentration	0.162	0.469	-10.94	0.003
Tree BA	0.095	0.395	6.26	0.018	<i>P. sylvestris</i> BA	0.100	0.561	8.21	0.009
Coppice amount	0.055	0.439	4.78	0.040					
<i>B. pendula</i> BA	0.054	0.489	4.26	0.044					
PCNM1	0.058	0.442	4.15	0.052					

**3 Chlorophyta richness**

Tree BA	0.351	0.335	-21.12	<0.001	<i>A. glutinosa</i> BA	0.134	0.109	5.41	0.022
<i>P. abies</i> BA	0.070	0.391	4.58	0.030	Tree BA	0.096	0.184	-4.24	0.049
Soil C/N ratio	0.089	0.470	-6.70	0.011	PCNM1	0.070	0.237	3.32	0.077
					<i>P. tremula</i> BA	0.062	0.282	3.10	0.083
					Soil Ca concentration	0.053	0.321	2.83	0.090

**4 Ciliophora richness**

Coppice amount	0.455	0.441	32.57	<0.001	Soil Ca concentration	0.602	0.590	52.90	<0.001
Understorey richness	0.131	0.564	12.05	0.004	Soil C/N ratio	0.114	0.699	-13.62	0.001
Soil N concentration	0.046	0.602	4.62	0.033	Soil N concentration	0.083	0.780	13.53	0.003
Tree richness	0.034	0.629	3.66	0.069	<i>P. abies</i> BA	0.021	0.797	3.81	0.054
Herb cover	0.032	0.655	3.68	0.049	<i>A. glutinosa</i> BA	0.017	0.811	-3.30	0.083

**5 Collembola richness**

Soil C/N ratio	0.203	0.182	9.93	0.002	PCNM12	0.179	0.155	7.62	0.008
PCNM21	0.142	0.311	8.25	0.007	PCNM1	0.149	0.288	7.55	0.006
PCNM2	0.129	0.432	9.09	0.002					

**6 Nematoda richness**

<i>L. sibirica</i> BA	0.095	0.072	4.11	0.047	Soil C/N ratio	0.209	0.196	-9.64	0.003
Coppice amount	0.071	0.122	-3.23	0.072	Soil P concentration	0.055	0.220	2.04	0.153

**7 Total microbial biomass**

PCNM1	0.681	0.672	83.07	<0.001	Soil P concentration	0.292	0.273	14.51	0.001
Soil P concentration	0.048	0.714	6.70	0.018	Soil C/N ratio	0.111	0.369	-6.31	0.016

**8 Bacterial biomass**

PCNM1	0.693	0.685	88.02	<0.001	Soil P concentration	0.216	0.193	9.63	0.004
Soil P concentration	0.046	0.725	6.69	0.016	Soil C/N ratio	0.185	0.365	-10.49	0.003
					Soil N concentration	0.071	0.424	4.43	0.042

**8.1 Actinobacterial biomass**

Soil P concentration	0.539	0.527	45.55	<0.001	A. glutinosa BA	0.292	0.272	14.43	0.001
PCNM1	0.031	0.547	2.72	0.098	Soil Ca concentration	0.146	0.405	8.84	0.011
					Soil C/N ratio	0.079	0.473	-5.41	0.023

**9 Fungi biomass ergosterol**

Soil N concentration	0.653	0.644	73.29	<0.001	Soil N concentration	0.677	0.668	73.46	<0.001
Soil P concentration	0.130	0.772	22.83	<0.001	Carbon concentration	0.090	0.754	13.17	0.005
Understorey richness	0.022	0.789	4.22	0.043					

**9.1 Saprotroph biomass ergosterol**

Soil N concentration	0.635	0.626	67.94	<0.001	Soil N concentration	0.484	0.470	32.89	<0.001
Soil P concentration	0.129	0.752	20.90	<0.001	P. sylvestris BA	0.042	0.498	2.99	0.091
Understorey richness	0.025	0.772	4.36	0.050	Carbon concentration	0.085	0.576	7.20	0.013
					Soil C/N ratio	0.046	0.614	4.28	0.047
					Soil Ca concentration	0.047	0.656	4.88	0.036

**9.2 EcM fungal biomass ergosterol**

PCNM1	0.521	0.509	73.29	<0.001	Soil N concentration	0.654	0.644	66.04	<0.001
A. glutinosa BA	0.085	0.586	-22.83	<0.001	P. sylvestris BA	0.089	0.728	11.78	0.003
Soil N concentration	0.050	0.628	4.22	0.043					

**10 Bacteria to fungi ratio**

Soil N concentration	0.261	0.242	-13.77	0.002	Soil C/N ratio	0.624	0.613	-58.02	<0.001
					Soil Ca concentration	0.083	0.690	9.67	0.003

**11 SAP to EcM fungi ratio**

A. glutinosa BA	0.376	0.360	23.48	<0.001	A. glutinosa BA	0.129	0.104	5.19	0.030
Tree diversity (Shannon index)	0.114	0.463	8.46	0.014	Soil Ca concentration	0.265	0.358	-14.85	0.001
					P. sylvestris BA	0.071	0.417	4.44	0.047