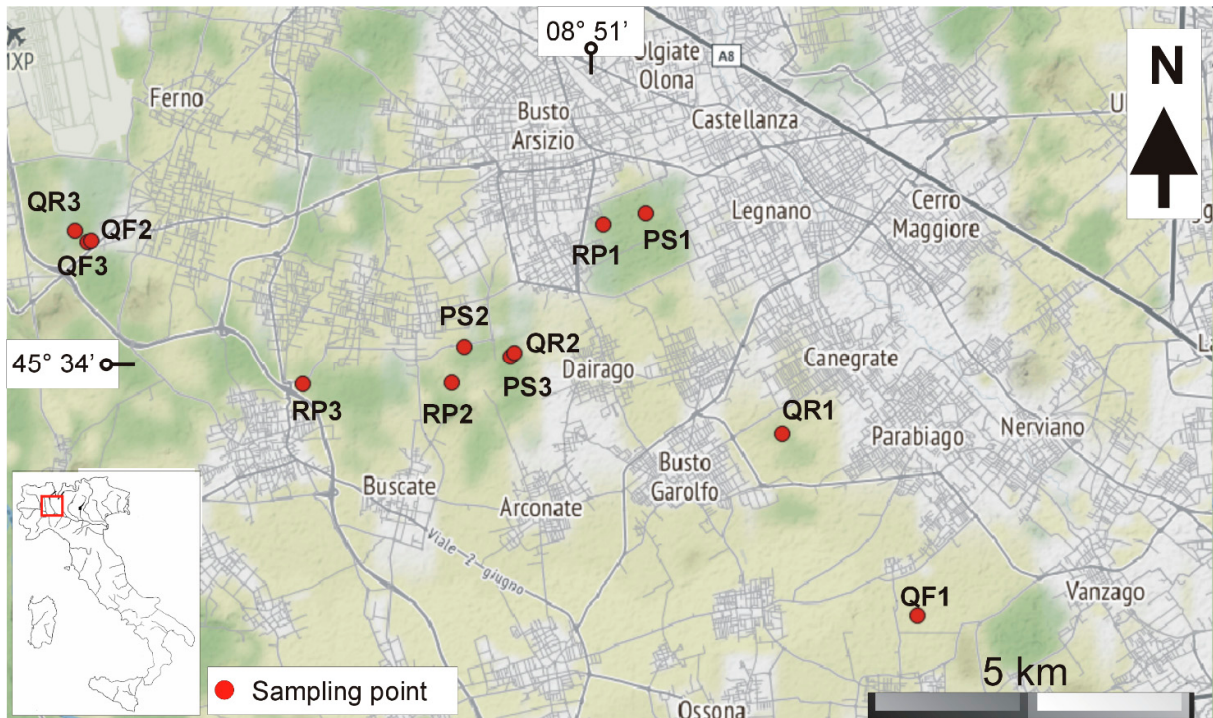


SUPPLEMENTARY MATERIAL

Gentili et al.—*Comparing Negative Impacts of *Prunus serotina*, *Quercus rubra* and *Robinia pseudoacacia* on Native Forest Ecosystems*

Supplementary Material Figure S1. The study area and location of sampling plots.



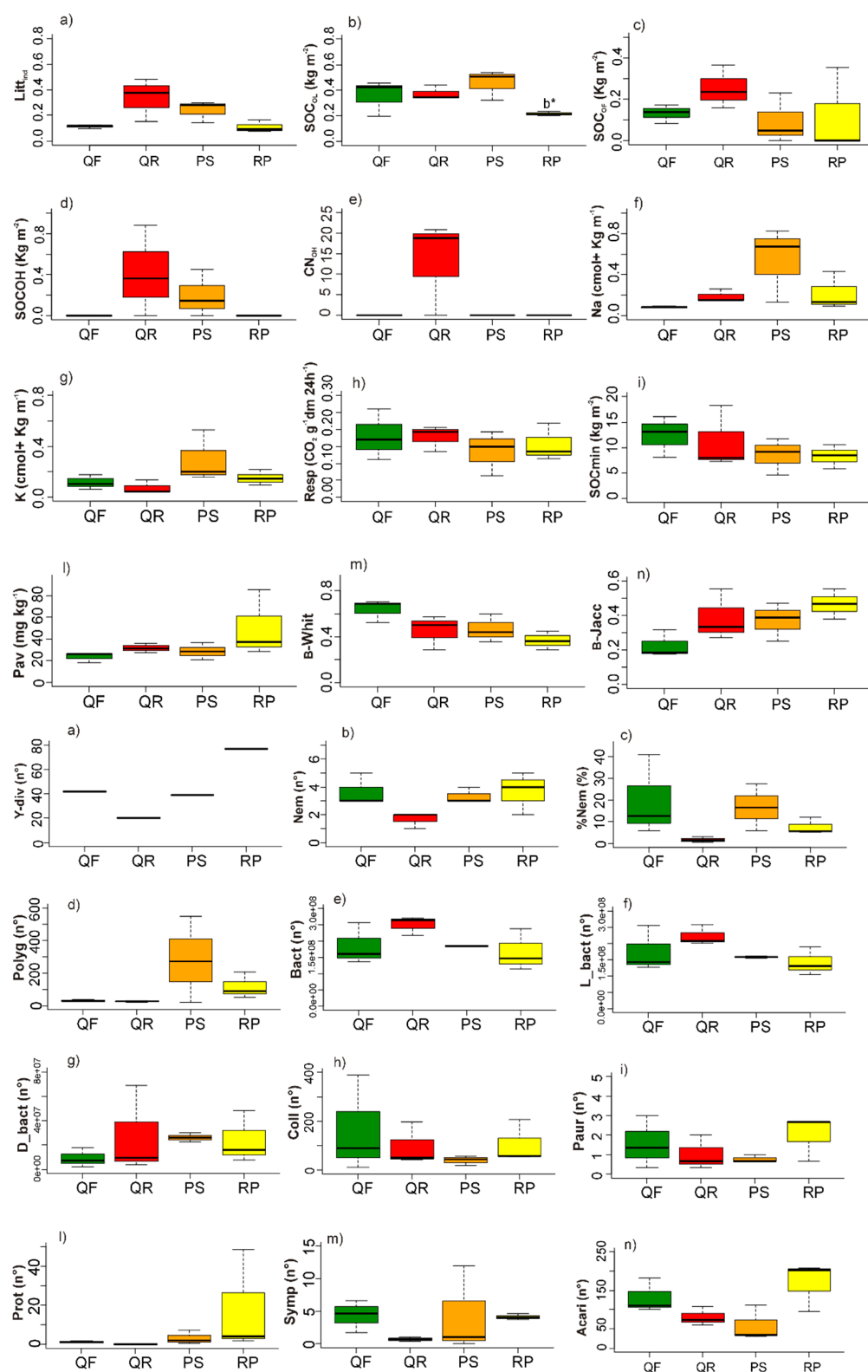
Supplementary Material Text S1. Protocol for bacteria counting.

Bacteria were extracted from soil by adding 50 ml of 10 mM sterile MgSO₄ to 1g of dried soil. Samples were incubated on a rotating drum for 12 hours at 4 °C. Soil particles were removed by filtering the samples with filter paper (at least 3 successive filtrations were carried out). Then the suspensions were further filtered with 60 and 15 µm filters. The number of viable and membrane-compromised soil bacteria was assessed according to Barbesti et al. (2000) protocol. Suspensions were stained with the two DNA fluorochromes SYBR Green I (Molecular Probes, Eugene, Oregon) at the final dilution of 1:10000 and propidium iodide (Sigma-Aldrich, Inc., St. Louis, Missouri) at the final concentration of 1 mg mL⁻¹. Bacteria were counted with a Zeiss Axioplan microscope using a Burkner chamber and a 100 X, 1,3 N.A. immersion oil objective. At least three replicates were prepared and analysed for each soil sample.

Supplementary Material Table S1. Spearman's rho correlation table. Correlation coefficients (in yellow values $> |0.7|$) and p-values (significant values, with $p < 0.05$, are in grey) are reported below and above the diagonal, respectively

	SOC _{COL}	SOC _{OF}	SOC _{OH}	CN _{OL}	K	SOC _{min}	CN _{min}	pH _{min}	β-Jacc	γ-div	Nem	%Nem	Alien	Polyg	Bact	D_bact	Acari	Coleo_lv	Coll	Paur	Prot	Symp	QBS-ar	Eu_rich
SOC _{COL}	-	0.584	0.807	0.265	0.376	1.000	0.914	0.284	0.940	0.084	0.383	0.854	0.135	0.280	0.665	0.527	0.633	0.746	0.863	0.511	0.276	0.224	0.219	0.261
SOC _{OF}	-0.176	-	0.431	0.388	0.069	0.232	0.049	0.824	1.000	0.182	0.018	0.261	0.058	0.622	0.232	0.913	0.948	0.100	0.481	0.991	0.159	0.751	0.801	0.426
SOC _{OH}	0.079	0.251	-	0.403	0.967	0.102	0.969	0.854	0.944	0.024	0.211	0.573	0.292	0.903	0.259	0.151	0.047	0.208	0.633	0.211	0.566	0.641	0.776	0.571
CN _{OL}	0.350	0.275	0.266	-	0.273	0.587	0.112	0.379	0.378	0.017	0.066	0.097	0.045	0.000	0.063	0.863	0.226	0.038	0.417	0.475	0.017	0.079	0.008	0.001
K	0.281	-0.541	-0.013	-0.344	-	0.130	0.077	0.860	0.766	0.409	0.146	0.007	0.230	0.391	0.376	0.110	0.541	0.139	0.466	0.647	0.108	0.336	0.109	0.079
SOC _{min}	0.000	0.373	-0.495	-0.175	-0.463	-	0.051	0.242	0.436	1.000	0.903	0.966	0.308	0.846	0.983	0.039	0.331	0.491	0.897	0.965	0.480	0.991	0.389	0.479
CN _{min}	0.035	0.577	0.012	0.483	-0.530	0.573	-	0.012	0.100	0.161	0.310	0.712	0.003	0.275	0.095	0.265	0.880	0.371	0.829	0.426	0.013	0.905	0.015	0.005
pH _{min}	-0.337	-0.072	-0.060	-0.280	0.057	-0.366	-0.696	-	0.016	0.292	0.698	0.262	0.024	0.391	0.562	0.108	0.354	0.822	0.929	0.449	0.179	0.560	0.010	0.021
B-Jacc	-0.025	0.000	0.023	-0.280	0.096	-0.249	-0.497	0.675	-	0.867	0.863	0.609	0.453	0.200	0.991	0.166	0.403	0.853	0.617	0.154	0.931	0.866	0.038	0.143
γ-div	-0.518	-0.413	-0.642	-0.669	0.263	0.000	-0.432	0.332	0.054	-	0.044	0.255	0.007	0.160	0.037	0.738	0.047	0.110	0.304	0.188	0.010	0.046	0.056	0.013
Nem	-0.277	-0.667	-0.390	-0.547	0.446	-0.040	-0.320	0.125	0.056	0.589	-	0.055	0.031	0.178	0.075	0.647	0.500	0.011	0.965	0.932	0.081	0.391	0.325	0.200
%Nem	0.060	-0.353	-0.181	-0.501	0.734	-0.014	-0.119	-0.352	-0.165	0.357	0.566	-	0.419	0.147	0.130	0.632	0.991	0.070	0.829	0.847	0.308	0.137	0.357	0.298
Alien	-0.457	-0.561	-0.332	-0.586	0.375	-0.322	-0.779	0.645	0.240	0.728	0.621	0.258	-	0.124	0.031	0.355	0.475	0.347	0.982	0.919	0.010	0.799	0.020	0.006
Polyg	-0.340	-0.159	-0.040	-0.855	0.273	0.063	-0.343	0.273	0.398	0.433	0.416	0.446	0.469	-	0.470	0.359	0.336	0.486	0.341	0.877	0.343	0.263	0.013	0.015
Bact	0.140	0.373	0.354	0.552	-0.281	0.007	0.504	-0.186	0.004	-0.605	-0.533	-0.462	-0.622	-0.231	-	0.542	0.167	0.018	0.542	0.239	0.018	0.656	0.278	0.132
D_bact	-0.203	0.035	0.441	-0.056	0.485	-0.601	-0.350	0.488	0.427	-0.108	0.148	0.154	0.293	0.291	0.196	-	0.276	0.461	0.090	0.475	0.694	0.854	0.050	0.190
Acari	-0.154	0.021	-0.582	-0.378	-0.196	0.308	-0.049	0.294	0.266	0.583	0.216	-0.004	0.229	0.305	-0.427	-0.343	-	0.384	0.018	0.008	0.686	0.656	0.376	0.340
Coleo_lv	-0.105	0.497	0.392	0.602	-0.453	-0.221	0.284	0.073	0.060	-0.485	-0.702	-0.539	-0.298	-0.223	0.666	0.236	-0.277	-	0.746	0.318	0.019	0.203	0.500	0.207
Coll	0.056	-0.225	-0.154	-0.259	-0.233	0.042	-0.070	-0.029	0.161	0.324	0.014	-0.070	0.007	0.301	-0.196	-0.510	0.664	-0.105	-	0.075	0.887	0.469	0.940	0.868
Paur	0.211	-0.004	-0.389	-0.229	0.148	-0.014	-0.254	0.242	0.438	0.408	-0.028	0.063	0.033	0.050	-0.368	-0.229	0.722	-0.315	0.532	-	0.514	0.336	0.275	0.277
Prot	-0.342	-0.433	-0.185	-0.670	0.488	-0.226	-0.691	0.416	0.028	0.708	0.523	0.322	0.706	0.300	-0.667	0.127	0.131	-0.660	0.046	0.209	-	0.115	0.030	0.002
Symp	-0.379	-0.102	-0.150	-0.526	0.305	-0.004	-0.039	-0.187	-0.054	0.585	0.273	0.455	0.082	0.351	-0.144	-0.060	0.144	-0.396	0.232	0.305	0.480	-	0.246	0.157
QBS-ar	-0.383	-0.081	-0.092	-0.724	0.486	-0.274	-0.678	0.706	0.602	0.564	0.311	0.292	0.657	0.692	-0.341	0.576	0.281	-0.216	0.025	0.343	0.624	0.363	-	0.000
Eu_rich	-0.353	-0.254	-0.182	-0.817	0.526	-0.227	-0.749	0.653	0.449	0.689	0.398	0.328	0.735	0.681	-0.461	0.407	0.302	-0.393	0.054	0.342	0.790	0.435	0.955	-

Supplementary Material Figure S2. Non-significant relation in abiotic and biotic factors among woodland types.



Supplementary Material Table S2. Frequency (n) of microarthropods collected in native QF) and alien (QR, PS, RP) woodland types during May 2016.

Taxa	QF	QR	PS	RP	Total
Acari	1180	722	527	1514	3943
Araneae	2	0	0	1	3
Pseudoscorpionida	0	0	7	0	7
Chilopoda	0	1	2	3	6
Diplopoda	0	0	1	1	2
Pauropoda	14	9	7	18	48
Symphyla	39	6	39	37	121
Collembola	1464	864	348	951	3627
Protura	10	0	28	163	201
Diplura	0	0	0	8	8
Orthoptera	0	0	1	0	1
Psocoptera	0	1	0	2	3
Hemiptera	0	1	0	0	1
Thysanoptera	3	5	2	3	13
Coleoptera (adults)	1	2	2	4	9
Hymenoptera	2	10	16	8	36
Diptera (adults)	2	1	8	5	16
Other holometabola (adults)	2	0	0	0	2
Coleoptera (larvae)	3	35	3	7	48
Diptera (larvae)	6	3	4	7	20
Other holometabola (larvae)	0	0	0	1	1
Total	2728	1660	995	2733	8116