

2 **Table S4.** Top 5 bacterial and eukaryotic indicator species. Taxa were sorted by decreasing significance (see color legend) and association coefficient (Co.).
 3 The full results of the indicator species analysis are given in Supplementary dataset 2.

		Arable		Forest		Grassland		Arable & Forest		Arable & Grassland		Forest & Grassland	
		Taxa	Co.	Taxa	Co.	Taxa	Co.	Taxa	Co.	Taxa	Co.	Taxa	Co.
Presence Absence	Bacteria	<i>Acidovorax</i> sp.	0.39	<i>Rhodopseudomonas</i> sp.	0.73	<i>Cyanobium</i> sp.	0.64	<i>Alicyclobacillaceae</i> sp.	0.57	<i>Geitlerinema</i> sp.	0.71	unc. <i>Myxococcales</i>	0.77
		<i>Comamonas</i> sp.	0.39	Unc. Forest soil bacterium (<i>Acetobacteraceae</i>)	0.72	<i>Commamonas</i> sp.	0.61	<i>Pseudahrensia</i> sp.	0.63	<i>Cyanobium</i> sp.	0.66	<i>Ramlibacter</i> sp.	0.74
		<i>Pedobacter</i> sp.	0.36	<i>Burkholderia</i> sp.	0.70	<i>Nostoc</i> sp.	0.60	<i>Bacillus</i> sp.	0.60	<i>Erythromicrobium</i> sp.	0.54	<i>Cand. Kaiserbacteria</i> ;	0.74
				<i>Nocardioides</i> sp.	0.67	<i>Methanococcoides</i> sp.	0.60	<i>Gemmatimonas</i> sp.	0.58	<i>Nostoc</i> sp.	0.65	unc. <i>Rhizobiaceae</i>	0.71
				Unc. <i>Sphingomonadaceae</i>	0.66	<i>Elusimicrobium</i> sp.	0.58	<i>Flavobacterium</i> sp.	0.57	<i>Pedobacter</i> sp.	0.63	<i>Mucinivorans</i> sp.	0.68
	Eukaryotes			<i>Helicoon</i> sp.	0.67	<i>Myxobolus</i> sp.	0.48	<i>Coccomyxa</i> sp.	0.61	<i>Chroomonas</i> sp.	0.59	<i>Chaetonotus</i> sp.	0.66
				<i>Hydryphantes</i> sp.	0.62	<i>Ptychogastria</i> sp.	0.48	<i>Xironogiton</i> sp.	0.49	<i>Fistulifera</i> sp.	0.52	<i>Chondrostereum</i> sp.	0.62
				<i>Ochrolechia</i> sp.	0.61	<i>Pterula</i> sp.	0.45	<i>Castrada</i> sp.	0.49	<i>Sigara</i> sp.	0.51	<i>Sorghum</i> sp.	0.60
				<i>Macrostromum</i> sp.	0.60	<i>Nephroma</i> sp.	0.41	<i>Closterium</i> sp.	0.48	<i>Ankistrodesmus</i> sp.	0.52	<i>Coccophagus</i> sp.	0.59
				<i>Chloroscypha</i> sp.	0.59	<i>Andreaea</i> sp.	0.56	<i>Oocystella</i> sp.	0.47	<i>Chlorella</i> sp.	0.50	<i>Marchandiomyces</i> sp.	0.59
Quantitative	Bacteria	<i>Comamonas</i> sp.	0.39	<i>Rhodoluna</i> sp.	0.95	Unc. <i>Parcubacteria</i>	0.99	<i>Beijerinckia</i> sp.	0.93	<i>Polynucleobacter</i> sp.	0.94	<i>Novosphingobium</i> sp.	0.93
				<i>Novosphingobium</i> sp.	0.92	<i>Calothrix</i> sp.	0.89	<i>Pragia</i> sp.	0.76	<i>Tabrizicola</i> sp.	0.88	<i>Crenothrix</i> sp.	0.90
				<i>Novosphingobium</i> sp.	0.86	Unc. <i>Cyanobacterium</i>	0.85	<i>Sphingomonas</i> sp.	0.64	<i>Hydrogenophaga</i> sp.	0.83	Unc. <i>Gammaproteobacteria</i>	0.89
				<i>Microbacteriaceae</i> sp.	0.84	<i>Cyanobium</i> sp.	0.79	Unc. <i>Pseudahrensia</i>	0.63	Unc. <i>Sporichthyaceae</i>	0.87	<i>Sphingomonas</i> sp.	0.89
				<i>Sphaerotilus</i> sp.	0.84	<i>Methanogranum</i> sp.	0.78	<i>Phyllobacterium</i> sp.	0.60	<i>Persicitalea</i> sp.	0.78	<i>Phenilobacterium</i> sp.	0.89
	Eukaryotes	Unc. <i>Leucocryptos</i>	0.44	<i>Helicascus</i> sp.	0.94	<i>Pterospora</i> sp.	0.44	<i>Aspergillus</i> sp.	0.84	Unc. <i>Cryptomycota</i>	0.86	<i>Pseudodiptomus</i> sp.	0.73
				<i>Chromophyton</i> sp.	0.87	<i>Roya</i> sp.	0.41	<i>Castrella</i> sp.	0.86	<i>Rhabditida</i> sp.	0.76	<i>Isotomiella</i> sp.	0.68
				<i>Laevapex</i> sp.	0.82	<i>Eucyclops</i> sp.	0.83	<i>Daphnia</i> sp.	0.70	Unc. <i>Pedinellales</i>	0.67	<i>Pinnularia</i> sp.	0.64
				<i>Trapelia</i> sp.	0.79	<i>Diplodinium</i> sp.	0.57	<i>Vorticella</i> sp.	0.81	<i>Cryptomonas</i> sp.	0.85	Unc. <i>Harpacticoida</i> sp.	0.63
				<i>Helicoon</i> sp.	0.74	<i>Haplosporidium</i> sp.	0.54	<i>Pinnularia</i> sp.	0.71	<i>Amphora</i> sp.	0.65	<i>Coccophagus</i> sp.	0.59

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P<=0.001	0.001<P<=0.01	0.01<P<=0.05
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