The following supplement accompanies the article

Importance of space and the local environment for linking local and regional abundances of microbes

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Supplement. Calculation and bootstrapping of LRsite and BCsite, and raw data

Bootstrapping of LRsite and BCsite

Bootstrapped values of LRsite and BCsite for each community and scale were calculated from a random subsample of communities in the data set equal in number to the communities for the observed value. For example, if LRsite and BCsite for a certain community at a certain spatial scale were calculated from the regional abundance of the 5 nearest communities, we calculated randomised LRsite and BCsite from 5 randomly drawn communities in a data set. For each randomisation, we calculated the average of the randomised LRsite and BCsite from all communities in a data set. We bootstrapped 1000 such randomisations for each spatial scale and then compared the observed average LRsite and BCsite with the averages and 95% confidence intervals. Values lying outside the 95% confidence interval suggest that the observed values differed from chance and that spatial scale is important.

R-executable code for calculating LRsite and BCsite

```
rm(list=ls())

library(ecodist)

AbObsX<-read.table("DataInv.txt", header = FALSE)#Observed abundances
Rows: Sp, Col: Sample
AbObsX<-data.frame(AbObsX)

nSite<-length(AbObsX[1,]) #Number of Sites

#Remove zero abundances on the regional scale
Z<-rowMeans(AbObsX)
AbObs<-cbind(AbObsX, Z)
AbObs<-AbObs[AbObs$Z>0,]
AbObs<-AbObs[,1:nSite]

nSp<-length(AbObs[,1]) #Number of Species

LR_BC_site<-matrix(nrow=nSite, ncol=2)#Empty matrices

#Calculate LRsite and BCsite for each community
for (i in 1:nSite) {
    rm(AbObsI, corrI, RegMean, BC) #Clear variables
    AbObsI<-AbObs
    AbObsI<-AbObs[,-i]   #Remove community i from regional abundances
    RegMean<-rowMeans(AbObsI) #Mean regional abundance
    corrI<-cor(RegMean,AbObs[,i], method = "pearson") #Correlation
coef. local and regional ab.
    LR_BC_site[i,1]<-corrI

    BC<-t(cbind(RegMean,AbObs[,i]))
    LR_BC_site[i,2]<-bcdist(BC) #Bray-Curtis similarity local and
regional ab.
    }

LR_BC_site #Check output looks OK, no negative values

LRsite<-matrix(data=NA,nrow=nSite, ncol=1)
LRsite<-LR_BC_site[,1]^2 #R-square values
BCsite<-matrix(data=1,nrow=nSite, ncol=1)
BCsite<-BCsite-LR_BC_site[,2] #1-BC

LR<-data.frame(LRsite)
BC<-data.frame(BCsite)
LR_BCsite<-cbind(LR,BC)
LR_BCsite
```

Table S1. LRsite, BCsite, measured environmental variables for each site, spatial variables (S), and hydrological connectivity variables (H) that showed significant associations to LRsite or BCsite. The environmental variables measured of the lakes, streams, and rock pools differed somewhat among data sets. Concentration of organic carbon (C_{org}, mg l^{-1}) was measured as dissolved organic carbon (DOC) in rock pools and lakes and streams in Småland and as total organic carbon (TOC) in the other data sets. However, the lakes where TOC had been used were oligotrophic to mesotrophic, and DOC generally constituted >90% of TOC, and we use TOC as a proxy for DOC in these data sets. Also, the wavelength for estimating absorbance (Abs) differed among datasets: 420 nm for lakes in Götland, Mälardalen, and Kolbäcksån, 436 nm for rockpools and lakes in Jämtland and Uppland, and 440 nm for lakes and streams in Småland; however, this span is so small that we find it unlikely to affect the values substantially. The pH, total nitrogen (TN, mg l^{-1}), and total phosphorus (TP, µg l^{-1}) were estimated in similar ways across data sets

Data set	Lake	LRsite	BCsite	North	East	pH	TN	TP	Abs	C	S	H
Bacteria,	Bodsjön	0.87	0.20	63° 27'	12° 37'	6.86	0.122	5.8	0.024	3	–0.29	
Jämtland	Gevsjön	0.81	0.21	63° 23'	12° 39'	6.79	0.117	4.6	0.019	2.2	–0.15	
	Greningen	0.85	0.20	63° 21'	12° 53'	6.68	0.229	8.2	0.048	5.4	0.44	
	Hensjön	0.57	0.33	63° 20'	13° 01'	6.82	0.147	5.4	0.034	3.6	0.48	
	Häggsjön	0.74	0.22	63° 31'	12° 40'	6.83	0.229	3.8	0.038	3.7	–0.25	
	Tännsjön	0.90	0.16	63° 27'	12° 43'	6.74	0.127	8.6	0.022	2.1	–0.29	
	Väster-Noren	0.81	0.26	63° 29'	12° 46'	6.88	0.132	4.2	0.039	4	–0.25	
	Åresjön	0.75	0.26	63° 24'	13° 05'	6.76	0.127	5	0.023	1.8	0.48	
	Öster-Noren	0.78	0.23	63° 27'	12° 47'	6.6	0.142	5.8	0.021	1.9	–0.17	
Bacteria,	Finnsjön	0.74	0.26	60° 20'	17° 55'	7.32	1.205	24.4	0.315	26.1		0
Uppland	Fälaren	0.83	0.27	60° 20'	17° 47'	7.28	1.552	43.3	0.38	27.6		0
	Lumpen	0.80	0.25	59° 58'	17° 17'	6.69	1.307	34.3	0.415	26		0
	Norrsjön	0.56	0.36	59° 49'	17° 55'	7.22	0.99	46.9	0.105	15.1		0
	Siggefora	0.85	0.26	59° 58'	17° 09'	6.46	0.842	17.3	0.22	17		0
	Stora hålsjön	0.59	0.37	60° 00'	17° 06'	5.97	1.153	16.5	0.55	25.9		0
	Strömmaren	0.82	0.29	60° 19'	17° 41'	7.12	2.594	40.6	0.215	23.7		–1.41
	Tarmlången	0.70	0.35	59° 59'	17° 06'	6.42	0.76	25.2	0.15	12.4		0
	Tvigölingen	0.82	0.28	60° 05'	17° 24'	7.34	1.894	32	0.625	46		0
	Velången	0.76	0.29	60° 07'	17° 28'	7.3	1.889	27.1	0.48	34.1		0
	Vikasjön	0.79	0.32	60° 17'	17° 52'	7.34	1.409	24.4	0.415	31.3		0
	Älgsjön	0.03	0.58	60° 18'	17° 59'	7.45	1.394	29.1	0.155	20.1		2.83
	Örsjön	0.87	0.29	59° 48'	18° 07'	7.32	1.041	26.4	0.285	24.6		–1.41
Bacteria, Rock	R1	0.05	0.78	Cluster 1*			1.16	112.9	0.041	5.9		
pools	R2	0.35	0.57	Cluster 1*			0.82	80.8	0.057	7.1		
	R3	0.54	0.57	Cluster 1*			0.86	45	0.152	9.5		
	R4	0.45	0.63	Cluster 1*			1.5	57.1	0.572	22		
	R5	0.41	0.64	Cluster 1*			1.01	152.5	0.162	9.7		
	R6	0.16	0.69	Cluster 2*			2.55	368.3	0.222	22.9		
	R7	0.49	0.61	Cluster 2*			0.89	48.8	0.198	11.5		
	R8	0.49	0.59	Cluster 2*			1.71	143.8	0.176	12.8		
	R9	0.43	0.67	Cluster 2*			0.52	43.3	0.058	7.2		
	R10	0.04	0.75	Cluster 2*			1.05	396.7	0.043	8.8		

	R11	0.38	0.63	Cluster 3*			1.2	260.8	0.051	12.6
	R12	0.36	0.59	Cluster 3*			1.34	316.7	0.076	8.5
	R13	0.24	0.59	Cluster 3*			0.71	96.3	0.077	8.2
	R14	0.34	0.51	Cluster 3*			0.62	81.7	0.043	7
	R15	0.23	0.69	Cluster 3*			0.72	24.6	0.028	7
	R16	0.39	0.49	Cluster 3*			0.79	96.3	0.021	5.5
	R17	0.11	0.64	Cluster 3*			1.56	340.8	0.042	10.9
	R18	0.48	0.57	Cluster 4*			0.87	47.5	0.032	7.1
	R19	0.42	0.67	Cluster 4*			0.93	84.6	0.126	11.5
	R20	0.59	0.49	Cluster 4*			0.85	30	0.032	8.9
	R21	0.42	0.63	Cluster 4*			1.5	69.2	0.047	12.6
	R22	0.51	0.58	Cluster 4*			0.95	170.4	0.033	8.2
	R23	0.20	0.59	Cluster 4*			1.12	49.2	0.026	10.7
	R24	0.20	0.59	Cluster 4*			1.25	100	0.055	10.6
	R25	0.36	0.63	Cluster 4*			0.75	71.3	0.09	8.1
	R26	0.50	0.64	Cluster 4*			1.35	61.7	0.063	10.3
	R27	0.21	0.68	Cluster 4*			1.3	95.4	0.052	12.6
	R28	0.41	0.61	Cluster 5*			0.41	24.6	0.049	8
	R29	0.57	0.53	Cluster 5*			0.57	67.1	0.046	6.5
	R30	0.53	0.46	Cluster 5*			0.71	141.3	0.068	7.2
	R31	0.32	0.61	Cluster 5*			0.6	21.7	0.022	6.8
	R32	0.52	0.55	Cluster 5*			0.77	116.7	0.079	8.6
	R33	0.57	0.51	Cluster 5*			0.86	298.8	0.09	8
	R34	0.63	0.51	Cluster 5*			0.81	99.2	0.048	8.4
	R35	0.23	0.68	Cluster 5*			1.12	76.7	0.035	10
Bacteria, Lakes	Skärshultsjön	0.37	0.56	57° 10'	14° 30'	5.61	0.399	3.50	0.212	12.7
Småland	Åbodasjön	0.76	0.28	57° 05'	14° 28'	6.96	0.503	3.16	0.135	11.0
	Förhultasjön	0.80	0.29	57° 07'	14° 30'	6.74	0.428	1.38	0.105	9.9
	Älgarydsjön	0.42	0.64	57° 11'	14° 16'	5.07	0.403	4.40	0.221	11.8
	Lindhultsgöl	0.72	0.36	57° 09'	14° 27'	6.35	0.463	3.13	0.439	23.8
	Burken	0.76	0.37	57° 11'	14° 40'	6.77	0.353	5.22	0.136	11.0
	Hisshultasjön	0.51	0.39	57° 12'	14° 39'	6.86	0.398	2.26	0.086	8.7
	Klintsjön	0.12	0.66	57° 07'	14° 41'	5.62	0.159	1.03	0.032	3.7
	Hacksjön	0.35	0.45	57° 08'	14° 38'	6.7	0.279	1.99	0.106	7.9
	Fiolen	0.67	0.33	57° 05'	14° 31'	6.56	0.483	2.96	0.062	6.4
	Gyslättasjön	0.65	0.35	57° 07'	14° 28'	6.31	0.347	1.62	0.183	12.2
	Yasjön	0.91	0.22	57° 04'	14° 26'	6.92	0.454	2.20	0.145	10.2
	Feresjön Mo	0.62	0.32	57° 10'	14° 48'	6.9	0.210	3.31	0.089	5.9
	Hökasjön	0.69	0.30	57° 12'	14° 49'	7.02	0.309	1.89	0.145	9.5
	Holmeshultasjön	0.90	0.25	57° 13'	14° 49'	6.81	0.366	3.38	0.117	9.1
	Teresjön	0.66	0.35	57° 11'	14° 52'	7.08	0.260	2.00	0.093	6.8
	Svanåsasjön	0.88	0.20	57° 02'	14° 40'	6.83	0.818	4.91	0.248	17.7
	Åredasjön	0.53	0.34	56° 54'	14° 58'	6.9	0.361	4.80	0.148	10.8

	Hjärtsjön	0.16	0.68	57° 03'	15° 14'	5.06	0.293	3.58	0.058	4.2	
	Borrasjön	0.57	0.47	56° 50'	14° 20'	6.54	0.805	7.18	0.435	25.1	
	Madsjön	0.84	0.33	56° 49'	14° 39'	6.52	0.592	4.06	0.173	13.3	
	Boskvarasjön	0.75	0.31	57° 14'	15° 08'	6.76	0.496	4.57	0.284	17.0	
	Kolvesjön	0.59	0.33	57° 11'	15° 06'	6.7	0.388	2.42	0.169	12.3	
	Idesjön	0.84	0.26	57° 03'	15° 38'	6.45	0.351	1.60	0.163	13.5	
	Skärlen	0.76	0.26	57° 10'	14° 51'	6.67	0.250	2.50	0.033	3.9	
	Hagserydssjön	0.68	0.36	57° 17'	15° 25'	6.25	0.549	7.24	0.301	21.1	
	Skirsjön	0.66	0.32	56° 53'	14° 57'	7.14	0.224	3.00	0.061	6.2	
	Linnerydssjön	0.83	0.27	56° 39'	15° 08'	6.76	1.032	13.50	0.407	26.8	
	Fersjön	0.74	0.30	57° 10'	14° 41'	6.84	0.465	19.90	0.321	18.0	
	Hultasjön	0.76	0.33	57° 07'	14° 42'	7.04	0.343	3.90	0.174	11.7	
	Holmasjön	0.75	0.31	57° 08'	14° 54'	7.41	0.280	8.60	0.070	7.1	
	Juven	0.39	0.37	57° 10'	15° 25'	6.66	0.575	5.25	0.365	20.4	
	Kinnen	0.65	0.30	56° 30'	15° 14'	7.13	0.785	5.66	0.262	22.8	
	Djupasjön	0.88	0.20	56° 29'	15° 17'	6.75	0.554	4.90	0.154	14.4	
	Hagesjön	0.86	0.25	56° 56'	14° 40'	6.61	0.516	6.06	0.364	20.8	
	Hemmesjösjön	0.81	0.28	56° 52'	14° 55'	6.91	0.436	7.07	0.208	13.8	
	Boasjön	0.87	0.20	56° 45'	13° 35'	7.08	0.604	4.62	0.179	9.0	
	Källshultasjön	0.70	0.34	56° 42'	13° 38'	7.14	0.282	5.20	0.137	8.3	
	Hojagöl	0.73	0.33	57° 11'	14° 51'	6.64	0.458	3.35	0.115	6.9	
	Grissjön	0.85	0.28	57° 11'	14° 40'	6.82	0.340	1.86	0.087	7.5	
Bacteria,	Skärshultsjön	0.20	0.57	57° 10'	14° 30'	4.85	0.616	9.87	0.229	18.4	
Streams	Förhultasjön	0.32	0.48	57° 07'	14° 30'	4.19	0.522	6.29	0.183	15.3	
Småland	Älgarydsjön	0.71	0.44	57° 11'	14° 16'	4.12	1.235	23.20	0.652	42.5	
	Burken	0.38	0.48	57° 11'	14° 40'	5.13	0.830	7.34	0.293	18.5	
	Fiolen	0.51	0.42	57° 05'	14° 31'	4.11	1.842	50.90	1.503	56.5	
	Hökasjön	0.13	0.62	57° 12'	14° 49'	6.09	0.384	3.23	0.183	10.3	
	Holmeshultasjön	0.20	0.59	57° 13'	14° 49'	6.6	0.908	11.10	0.229	16.2	
	Svanåsasjön	0.36	0.46	57° 02'	14° 40'	6.59	1.631	32.90	0.386	25.8	
	Hjärtsjön	0.37	0.47	57° 03'	15° 14'	3.61	1.277	10.88	2.206	50.0	
	Borrasjön	0.30	0.47	56° 50'	14° 20'	4.6	1.187	21.40	0.908	42.8	
	Boskvarasjön	0.21	0.73	57° 14'	15° 08'	5.17	0.756	8.31	0.614	25.5	
	Idesjön	0.22	0.67	57° 03'	15° 38'	6.01	0.922	4.87	0.402	24.7	
	Skärlen	0.16	0.46	57° 10'	14° 51'	4.49	1.081	23.90	1.110	34.0	
	Linnerydssjön	0.28	0.68	56° 39'	15° 08'	5.74	2.650	68.00	0.969	50.9	
	Juven	0.70	0.34	57° 10'	15° 25'	4.48	2.183	34.60	1.869	73.6	
	Djupasjön	0.20	0.68	56° 29'	15° 17'	6.65	0.855	4.03	0.487	25.1	
	Hagesjön	0.49	0.41	56° 56'	14° 40'	4.4	1.468	11.20	1.679	61.5	
	Boasjön	0.32	0.52	56° 45'	13° 35'	5.26	1.308	15.00	0.777	35.7	
Phytoplankton,	Bodsjön	0.91	0.24	63° 27'	12° 37'	6.86	0.122	5.8	0.024	3	–0.29
Jämtland	Gevsjön	0.73	0.40	63° 23'	12° 39'	6.79	0.117	4.6	0.019	2.2	–0.15
	Greningen	0.00	0.85	63° 21'	12° 53'	6.68	0.229	8.2	0.048	5.4	0.44

	Hensjön	0.21	0.62	63° 20'	13° 01'	6.82	0.147	5.4	0.034	3.6	0.48	
	Häggsjön	0.80	0.34	63° 31'	12° 40'	6.83	0.229	3.8	0.038	3.7	–0.25	
	Tännsjön	0.53	0.39	63° 27'	12° 43'	6.74	0.127	8.6	0.022	2.1	–0.29	
	Väster-Noren	0.47	0.43	63° 29'	12° 46'	6.88	0.132	4.2	0.039	4	–0.25	
	Åresjön	0.35	0.49	63° 24'	13° 05'	6.76	0.127	5	0.023	1.8	0.48	
	Öster-Noren	0.55	0.51	63° 27'	12° 47'	6.6	0.142	5.8	0.021	1.9	–0.17	
Phytoplankton, Uppland	Finnsjön	0.82	0.50	60° 20'	17° 55'	7.32	1.205	24.4	0.315	26.1		0.44
	Fälaren	0.73	0.35	60° 20'	17° 47'	7.28	1.552	43.3	0.38	27.6		–0.20
	Lumpen	0.90	0.39	59° 58'	17° 17'	6.69	1.307	34.3	0.415	26		–0.77
	Norrsjön	0.00	0.86	59° 49'	17° 55'	7.22	0.99	46.9	0.105	15.1		–0.77
	Siggefora	0.00	0.76	59° 58'	17° 09'	6.46	0.842	17.3	0.22	17		0.44
	Stora hålsjön	0.83	0.68	60° 00'	17° 06'	5.97	1.153	16.5	0.55	25.9		–0.20
	Strömmaren	0.00	0.62	60° 19'	17° 41'	7.12	2.594	40.6	0.215	23.7		–0.77
	Tarmlången	0.00	0.83	59° 59'	17° 06'	6.42	0.76	25.2	0.15	12.4		–0.20
	Tvigölingen	0.83	0.68	60° 05'	17° 24'	7.34	1.894	32	0.625	46		1.01
	Velången	0.00	0.72	60° 07'	17° 28'	7.3	1.889	27.1	0.48	34.1		2.74
	Vikasjön	0.83	0.69	60° 17'	17° 52'	7.34	1.409	24.4	0.415	31.3		–0.20
	Älgsjön	0.00	0.95	60° 18'	17° 59'	7.45	1.394	29.1	0.155	20.1		–0.77
	Örsjön	0.14	0.71	59° 48'	18° 07'	7.32	1.041	26.4	0.285	24.6		–0.77
Phytoplankton, Mälardalen	Älgsjön	0.08	0.83	59° 06'	16° 21'	7.04	0.489	25	0.242	18.8	–0.08	
	Björken	0.01	0.78	58° 51'	17° 22'	7.26	0.365	6	0.047	8.1	–0.08	
	Dagarn	0.14	0.63	59° 54'	15° 41'	7.22	0.274	5	0.04	6.5	–0.26	
	Djupa Holmsjön	0.09	0.77	59° 11'	17° 01'	6.42	0.393	7	0.13	12.4	0.02	
	Edasjön	0.01	0.70	59° 48'	17° 54'	7.46	0.623	41	0.083	12.9	0.37	
	Ekholmssjön	0.09	0.80	59° 52'	17° 02'	7.2	0.413	23	0.07	10.4	0.24	
	Fysingen	0.00	0.81	59° 34'	17° 54'	8.12	0.459	24	0.027	11.4	0.43	
	Gryten	0.15	0.64	58° 52'	16° 04'	7	0.613	15	0.14	16.7	–0.14	
	Hällsjön	0.30	0.67	60° 10'	15° 43'	6.6	0.212	5	0.057	7.3	–0.27	
	Lillsjön	0.05	0.78	59° 06'	16° 48'	7.18	0.659	100	0.127	16.5	–0.08	
	Limmingsjön	0.07	0.71	59° 35'	14° 31'	6.92	0.329	4	0.049	7.1	–0.18	
	Mäsen	0.20	0.59	60° 02'	15° 39'	7.13	0.255	7	0.053	7.2	–0.28	
	N. Yngern	0.08	0.64	59° 10'	17° 24'	7.38	0.237	13	0.024	6.7	0.14	
	Övre Skärsjön	0.02	0.82	59° 50'	15° 32'	6.08	0.287	6	0.143	7.7	–0.32	
	Rundbosjön	0.00	0.90	58° 48'	17° 21'	7.19	0.545	33	0.064	10.7	–0.08	
	Siggeforasjön	0.05	0.70	59° 59'	17° 09'	6.91	0.423	12	0.174	13.4	0.29	
	Skärgölen	0.22	0.70	58° 46'	16° 13'	7.18	0.329	5	0.044	7.3	–0.12	
	Stora Envättern	0.06	0.72	59° 07'	17° 21'	6.71	0.296	7	0.072	10.5	0.12	
	Tärnan	0.03	0.75	59° 33'	18° 21'	7.35	0.359	10	0.049	9.4	0.30	
Phytoplankton, Götaland	Älgarydssjön	0.83	0.69	57° 10'	14° 16'	5.87	0.544	38	0.321	14	–0.17	
	Allgjuttern	0.00	0.75	57° 57'	16° 05'	6.9	0.357	5	0.043	7.3	0.24	
	Brunnsjön	0.00	0.86	56° 36'	15° 43'	5.69	0.736	10	0.407	20.7	–0.03	
	Fiolen	0.00	0.85	57° 05'	14° 31'	6.66	0.386	11	0.056	7.3	–0.16	
	Fjärasjö	0.01	0.70	57° 36'	15° 14'	6.99	0.338	10	0.072	9.1	0.40	

	Hagasjön	0.32	0.52	57° 20'	13° 42'	6.69	0.281	6	0.078	8.2	–0.12	
	Harasjön	0.65	0.57	57° 00'	13° 34'	5.35	0.578	21	0.424	19.1	–0.23	
	Hinnasjön	0.25	0.57	56° 53'	14° 55'	6.18	0.432	13	0.186	12.1	–0.20	
	Hjärtsjön	0.00	0.96	57° 03'	15° 15'	5.6	0.263	5	0.018	4.7	–0.10	
	Hökesjön	0.00	0.81	57° 38'	15° 45'	7.34	0.271	4	0.026	5.6	0.54	
	Rammsjön	0.82	0.68	56° 46'	13° 25'	5.53	0.662	42	0.694	15.5	–0.18	
	St Skärsjön	0.03	0.68	56° 40'	13° 03'	7.12	0.301	6	0.037	4.6	–0.11	
	Storasjö	0.75	0.42	56° 57'	15° 16'	6.04	0.319	13	0.133	9.4	–0.16	
	Svartesjön	0.82	0.69	56° 51'	13° 13'	4.53	0.444	25	0.86	26.3	–0.18	
	Tångerdasjön	0.83	0.65	57° 28'	15° 03'	7.45	0.51	58	0.122	11.2	0.37	
	Tängersjö	0.02	0.70	57° 28'	16° 01'	6.7	0.433	8	0.055	12.2	0.25	
	Tomeshultagölen	0.82	0.69	56° 44'	15° 24'	5.91	0.733	44	0.454	18	–0.17	
Phytoplankton, Kolbäcksån	Väsman Sollen	0.03	0.69	60° 09'	15° 10'	7.3	0.396	3	0.103	8.2	0.16	0
	Övre Hillen	0.28	0.55	60° 09'	15° 14'	7.32	0.525	7	0.094	7.8	–0.10	0
	Haggen	0.56	0.55	60° 07'	15° 16'	7.01	0.298	6	0.077	8.1	–0.22	0
	N. Barken	0.31	0.67	60° 05'	15° 34'	7.22	0.35	13	0.071	7.7	–0.58	0
	S. Barken	0.52	0.53	60° 01'	15° 45'	6.94	0.361	17	0.058	7.5	–0.44	0
	St. Aspen	0.02	0.79	59° 58'	15° 53'	7.38	0.467	25	0.071	7.6	0.00	0
	Åmänningen	0.13	0.58	59° 52'	16° 02'	7.06	0.402	14	0.062	7.5	0.37	0
	Östersjön	0.07	0.69	59° 41'	16° 11'	6.99	0.416	28	0.078	8	0.37	0
	Bysjön	0.34	0.62	60° 15'	14° 58'	6.76	0.291	6	0.104	8.8	0.27	2.24
	Saxen	0.00	0.93	60° 10'	14° 58'	6.88	0.358	4	0.09	8.5	0.17	–2.24
	Trätten S	0.01	0.78	60° 02'	15° 57'	6.94	0.643	31	0.085	10.4	0.00	0

* Refers to Fig. 1 from Langenheder & Rangnarsson (2007)

Fig. S1. Examples of LRsite values (r^2 values) depending on different local and regional relative abundances; each point represents the local and regional relative abundance of one taxon in the community. (a) Examples of 2 bacterioplanktonic communities from Småland lakes where relative local abundances in one community (Yasjön, filled diamonds, solid line) are similar to regional relative abundances but less so in Klintsjön (open squares, hatched line). (b) In some metacommunities, LRsite values (r^2 values) are contingent on one or few taxa, illustrated by phytoplankton communities from lakes in the Götaland data set, where Lake Älgarydssjön (filled diamonds, solid line) has a high LRsite because the regional dominant species (*Gonyostomum semen)* is dominant in this lake but not in Lake Allgjuttern (open squares, hatched line)