

Supporting Information 9. Parameter estimates of the five models in the two *S*-spaces for the four taxonomic groups.

Table S9.1. Parameter estimates for the power function. $z < 0$: number of all SAR cases when parameter z was below 0; $z > 1$: number of all SAR cases when parameter z was above 1; N : total number of performed SAR models for a given subset of data.

	parameter c						parameter z						$z < 0$	$z > 1$	N	
	mean	SD	min.	max.	quantile .025 .975		mean	SD	min.	max.	quantile .025 .975					
S-space																
All	20.8	12.1	0.18	58.6	2.08	45.5	0.20	0.05	0.08	0.54	0.12	0.31	0	0	686	
Vasc. plants	21.7	14.9	0.18	73.9	2.19	53.1	0.26	0.11	0.02	0.88	0.13	0.56	0	10	1970	
Bryophytes	3.42	3.88	0.06	26.4	0.15	16.6	0.19	0.12	0.00	0.75	0.04	0.46	0	0	536	
Lichens	2.80	3.33	0.02	19.1	0.14	12.2	0.28	0.14	0.05	0.88	0.11	0.65	0	1	319	
log S-space																
All	20.2	11.9	0.49	67	2.02	46.3	0.24	0.06	0.10	0.59	0.14	0.38	0	0	686	
Vasc. plants	21.70	15.6	0.34	70.6	2.12	56.7	0.29	0.11	0.02	0.95	0.14	0.59	0	2	1980	
Bryophytes	3.40	4.24	0.20	30.6	0.29	17.3	0.20	0.10	0.00	0.53	0.04	0.39	0	0	540	
Lichens	2.66	3.36	0.07	23	0.21	12.1	0.24	0.09	0.03	0.66	0.10	0.46	0	0	339	

Table S9.2. Parameter estimates for the quadratic power function. $z_1 < 0$: number of all SAR cases when parameter z_1 was below 0; $z_1 > 1$: number of all SAR cases when parameter z_1 was above 1; N : total number of performed SAR models for a given subset of data.

	parameter c						parameter z_1						parameter z_2						$z_1 < 0$	$z_1 > 1$	N	
	mean	SD	min.	max.	quantile .025 .975		mean	SD	min.	max.	quantile .025 .975		mean	SD	min.	max.	quantile .025 .975					
S-space																						
All	22.00	13.09	0.29	65.42	2.33	49.66	0.21	0.06	0.06	0.82	0.12	0.34	-0.01	0.02	-0.13	0.06	-0.06	0.02	1	2	683	
Vasc. plants	20.51	13.85	0.29	96.08	2.47	51.82	0.23	0.13	0.00	0.95	0.03	0.61	-0.03	0.07	-0.71	0.29	-0.17	0.10	138	19	1825	
Bryophytes	3.78	4.56	0.00	32.18	0.44	19.44	0.19	0.13	0.00	0.97	0.02	0.58	-0.03	0.16	-3.23	0.09	-0.17	0.05	12	6	510	
Lichens	3.24	3.91	0.00	21.62	0.00	14.52	0.28	0.17	0.00	0.96	0.07	0.79	-0.09	0.26	-3.08	0.16	-0.74	0.05	36	11	268	
log S-space																						
All	21.74	13.39	0.26	72.72	1.92	51.54	0.21	0.05	0.03	0.53	0.11	0.32	-0.01	0.02	-0.12	0.07	-0.07	0.03	0	0	686	
Vasc. plants	20.20	13.56	0.26	93.56	2.24	49.36	0.24	0.13	0.00	0.98	0.04	0.61	-0.02	0.05	-0.27	0.19	-0.12	0.08	100	12	1870	
Bryophytes	3.51	4.40	0.12	32.57	0.20	17.79	0.19	0.11	0.00	0.78	0.02	0.44	0.00	0.04	-0.11	0.15	-0.07	0.07	6	0	534	
Lichens	2.65	3.57	0.07	17.06	0.15	13.37	0.26	0.11	0.01	0.84	0.06	0.52	0.01	0.05	-0.27	0.11	-0.10	0.09	18	0	321	

Table S9.3. Parameter estimates for the breakpoint power function. $z_1 < 0$ (and $z_2 < 0$): number of all SAR cases when parameter z_1 (or z_2 respectively) was below 0; $z_1 > 1$ (and $z_2 > 1$): number of all SAR cases when parameter z_1 (or z_2 respectively) was above 1; N : total number of performed SAR models for a given subset of data.

	parameter c						parameter z_1								
	mean	SD	min.	max.	quantile .025 .975		mean	SD	min.	max.	quantile .025 .975		$z_1 < 0$	$z_1 > 1$	
S-space															
All	28.20	19.80	0.02	168.18	2.86	73.32	0.14	0.14	0.00	1.00	0.00	0.46	0	1	
Vasc. plants	23.42	15.17	0.02	93.81	3.11	56.96	0.18	0.16	0.00	1.00	0.00	0.64	44	16	
Bryophytes	11.93	20.56	0.04	192.95	0.10	51.34	0.35	0.38	0.00	1.00	0.00	1.00	5	4	
Lichens	7.44	11.58	0.04	58.65	0.05	49.91	0.53	0.40	0.00	1.00	0.00	1.00	20	2	
log S-space															
All	41.26	79.58	0.25	900.62	0.88	141.28	0.27	0.15	0.00	0.86	0.00	0.67	0	0	
Vasc. plants	28.58	66.33	0.08	1024.42	0.93	101.06	0.32	0.17	0.00	1.00	0.00	0.73	0	4	
Bryophytes	12.23	28.31	0.06	248.36	0.13	100.09	0.21	0.21	0.00	0.77	0.00	0.71	0	1	
Lichens	14.05	73.48	0.05	900.27	0.06	100.00	0.20	0.23	0.00	0.89	0.00	0.73	5	0	
	parameter z_2						parameter T								
	mean	SD	min.	max.	quantile .025 .975		mean	SD	min.	max.	quantile .025 .975		$z_2 < 0$	$z_2 > 1$	N
S-space															
All	0.17	0.07	0.00	0.54	0.00	0.28	11.32	45.39	0.00	640.78	0.00	85.89	1	0	685
Vasc. plants	0.17	0.11	0.00	0.88	0.00	0.43	8.63	38.07	0.00	710.01	0.01	68.44	15	45	1826
Bryophytes	0.14	0.11	0.00	1.00	0.00	0.41	12.76	49.13	0.00	640.73	0.00	101.14	3	5	530
Lichens	0.18	0.15	0.00	0.86	0.00	0.64	17.29	56.73	0.00	640.01	0.01	95.34	2	20	317
log S-space															
All	0.20	0.09	0.00	1.00	0.05	0.38	1.91	11.93	0.00	244.80	0.00	11.23	0	0	683
Vasc. plants	0.25	0.20	0.00	1.00	0.00	1.00	2.14	11.31	0.00	275.32	0.00	23.30	4	0	1557
Bryophytes	0.22	0.19	0.00	1.00	0.00	0.69	2.91	13.98	0.00	206.75	0.00	25.00	0	2	535
Lichens	0.31	0.22	0.00	1.00	0.00	0.90	3.67	23.54	0.00	369.96	0.00	17.89	0	7	326

Table S9.4. Parameter estimates for the logarithmic function. *N*: total number of performed SAR models for a given subset of data.

	parameter c						parameter z						<i>N</i>
	mean	SD	min.	max.	quantile		mean	SD	min.	max.	quantile		
					.025	.975					.025	.975	
S-space													
All	26.85	15.03	0.71	74.32	2.56	57.11	7.99	4.52	0.36	22.18	0.80	16.74	686
Vasc. plants	21.83	12.99	0.37	70.20	2.31	45.95	7.46	4.45	0.20	21.11	0.79	16.45	1982
Bryophytes	4.13	4.24	0.25	28.74	0.46	18.49	1.10	1.21	0.01	8.60	0.11	5.24	540
Lichens	3.35	3.62	0.24	20.40	0.25	13.19	1.06	1.04	0.05	5.40	0.11	3.75	339
log S-space													
All	20.12	11.53	0.61	57.20	2.13	44.37	4.64	2.72	0.12	13.04	0.42	10.54	686
Vasc. plants	18.93	12.06	0.20	51.48	1.77	42.22	5.84	4.28	0.09	22.64	0.46	15.47	1982
Bryophytes	4.48	5.17	0.18	38.10	0.28	20.09	0.97	1.21	0.03	9.46	0.05	4.55	551
Lichens	3.27	3.73	0.18	46.69	0.27	13.28	0.68	0.89	0.01	11.67	0.05	3.04	540

Table S9.5. Parameter estimates for the Michaelis-Menten function. *N*: total number of performed SAR models for a given subset of data.

	parameter c						parameter z						<i>N</i>
	mean	SD	min.	max.	quantile		mean	SD	min.	max.	quantile		
					.025	.975					.025	.975	
S-space													
All	45.44	26.54	2.11	151.67	4.60	93.89	4.29	28.36	0.00	660.64	0.02	16.00	686
Vasc. plants	30.34	25.96	1.18	437.30	3.58	81.51	5.63	59.22	0.00	1851.83	0.01	24.47	1982
Bryophytes	6.97	12.83	0.59	268.63	0.91	25.65	12.50	85.95	0.00	1498.14	0.00	77.42	537
Lichens	8.53	26.23	0.59	330.59	0.70	23.95	20.41	86.10	0.00	874.15	0.01	232.55	323
log S-space													
All	22.24	13.06	0.70	68.12	2.28	50.97	0.00	0.01	0.00	0.28	0.00	0.03	686
Vasc. plants	18.47	11.34	0.24	164.12	2.48	38.62	0.18	4.38	0.00	137.85	0.00	0.23	1982
Bryophytes	5.30	6.19	0.20	44.77	0.37	23.47	0.00	0.01	0.00	0.13	0.00	0.03	551
Lichens	3.81	0.05	0.20	27.69	0.37	16.15	0.00	0.01	0.00	0.08	0.00	0.02	540