

## Supplementary material

### Appendix 1

Download: <Appendix 1 create.MEM.model.R>

### Appendix 2

Environmental variables with their medians, quartiles, minimum and maximum values. med: median; 25%: 25 percentile, 75%: 75 percentile; max: maximum recorded for the entire dataset.

	med	min	max	25%	75%
Chlorophyll a ( $\mu\text{g l}^{-1}$ )	11	2	154	5	18
Macrophyte cover (%)	70	0	100	50	90
pH	7	5	10	7	8
Conductivity ( $\mu\text{S cm}^{-1}$ )	15	5	238	12	19
Alkalinity ( $\text{mg l}^{-1} \text{CaCO}_3$ )	9	0	31	6	13
Oxygen ( $\text{mg l}^{-1}$ )	6	3	12	5	7
Total nitrates ( $\text{mg l}^{-1}$ )	0.08	0.01	0.36	0.05	0.13
Total phosphates ( $\text{mg l}^{-1}$ )	0.01	0.00	0.63	0.01	0.01
Transparency (m)	0.35	0.11	0.50	0.29	0.39
Depth (m)	0.19	0.03	0.46	0.13	0.27
Surface area ( $\text{m}^2$ )	23	2	310	8	52
Sludge depth (m)	0.25	0.02	0.60	0.10	0.40
Altitude (m)	4327	4067	4429	4252	4383

## Appendix 3

Occurrence and abundance of cladoceran species, as determined from the analysis of the dormant propagule banks and snap shot samples of the active communities. Occ: number of pools with the species; %occ: frequency of occurrence; med: median; 25%: 25 percentile, 75%: 75 percentile; max: maximum recorded for the entire dataset.

	Dormant propagule bank samples						Active community snap shot samples					
	occ	%occ	med <sup>a</sup>	25% <sup>a</sup>	75% <sup>a</sup>	max <sup>a</sup>	occ	% occ	med <sup>b</sup>	25% <sup>b</sup>	75% <sup>b</sup>	max <sup>b</sup>
<i>Alona boliviana</i>	3	5	0	0	0	35	1	2	0	0	0	62
<i>Alona cambouei</i>	42	69	13	0	36	159	39	64	1	0	3	28
<i>Alona davidi</i>	17	28	0	0	5	128	11	18	0	0	0	14
<i>Alona glabra</i>	4	7	0	0	0	22	0	0	0	0	0	0
<i>Alona ossiani</i>	55	90	34	12	72	247	47	77	2	0	9	59
<i>Alonalla excisa</i>	30	49	1	0	12	72	40	66	1	0	3	58
<i>Bosmina huaronensis</i>	0	0	0	0	0	0	1	2	0	0	0	0
<i>Camptocercus aloniceps</i>	23	38	0	0	12	60	18	30	0	0	0	44
<i>Ceriodaphnia</i> sp.	29	48	1	0	17	94	15	25	0	0	0	63
<i>Chydorus brevilabris</i>	52	85	22	11	41	119	56	92	18	4	88	500
<i>Daphnia peruviana</i>	5	8	0	0	0	4	4	7	0	0	0	2
<i>Daphnia pulex</i>	7	11	0	0	0	46	5	8	0	0	0	6
<i>Ephemerochorus hibridus</i>	7	11	0	0	0	162	2	3	0	0	0	18
<i>Ephemerochorus</i> cf. <i>acanthodes</i>	0	0	0	0	0	0	1	2	0	0	0	1
<i>Graptoleberis testudinaria</i>	11	18	0	0	0	41	8	13	0	0	0	10
<i>Drepanothrix</i> cf. <i>dentata</i>	2	3	0	0	0	17	0	0	0	0	0	0
<i>Macrothrix atahualpa</i>	53	87	55	20	102	232	45	74	1	0	14	97
<i>Paralona piagna</i>	6	10	0	0	0	17	3	5	0	0	0	91
<i>Pleuroxus caca</i>	0	0	0	0	0	0	7	11	0	0	0	7
<i>Pleuroxus</i> cf. <i>aduncus</i>	2	3	0	0	0	7	0	0	0	0	0	0
<i>Pleuroxus</i> sp1	6	10	0	0	0	32	0	0	0	0	0	0
<i>Schapholeberis spinifera</i>	1	2	0	0	0	4	1	2	0	0	0	1
<i>Simocephalus mixtus</i>	47	77	18	1	50	198	32	52	0	0	3	142
<i>Streblocerus serricaudatus</i>	5	8	0	0	0	55	0	0	0	0	0	0
<i>Ilyocryptus</i> cf. <i>spinifer</i>	1	2	0	0	0	7	0	0	0	0	0	0

<sup>a</sup> number of dormant propagules per kilogram of sediment wet weight.

<sup>b</sup> numbers of individuals per liter.