

*Zooplankton biodiversity and community structure in peridunal ponds*

**Zooplankton biodiversity and community structure vary along spatiotemporal  
environmental gradients in restored peridunal ponds**

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**Supplementary Tab. 1.** Environmental variables measured in each pond during the study period: mean and standard deviation (mean±sd) and minimum and maximum values.

		P1-PR	P2-98	LH1-98	LH2-03	SH1-98	SH2-03	SH3-PR	SH4-98
Conductivity (mS cm <sup>-1</sup> )	Mean ±sd	1.8±0.2	4.0±0.4	1.5±0.5	2.8±1.9	1.2±0.3	2.0±0.9	6.3±1.9	0.8±0.3
	Min-max	1.6-2.1	3.4-4.8	1.1-2.5	1.5-5	0.9-1.6	1.1-4.0	3.9-10.1	0.4-1.1
Temperature (°C)	Mean ±sd	17.8±5.5	16.5±5.5	15.9±4.9	17.3±3.8	16.4±4.6	18.3±4.0	17.4±3.8	13.7±2.7
	Min-max	10.3-27.4	10.0-26.6	13.7-23.5	13.5-24.1	11.1-25	13.5-23.9	12.8-23.2	10.4-18.1
pH	Mean ±sd	8.7±0.3	8.8±0.4	8.2±0.3	9.1±0.2	8.6±0.3	9.1±0.2	8.9±0.4	8.3±0.2
	Min-max	8.2-9.2	8.3-9.5	7.7-8.6	8.8-9.4	8.3-9.0	8.7-9.4	8.2-9.4	8.0-8.5
Dissolved oxygen (mg L <sup>-1</sup> )	Mean ±sd	9.1±2.3	8.1±2.4	8.8±1.9	8.8±1.2	8.8±1.5	9.8±0.9	11.7±1.4	9.4±1.6
	Min-max	4.5-14.1	2.8-12.3	3.7-10.8	6.7-11.4	6.3-10.6	8.9-11.2	8.9-13.5	7.8-11.2
Depth (cm)	Mean ±sd	110±9	114±42	38±9	21±6	11±3	17±5	21±5	14±5
	Min-max	100-200	85-160	24-50	10-30	5-15	7-25	15-28	8-21
Chl-a (µg L <sup>-1</sup> )	Mean ±sd	1.8±1.7	12.0±16.8	1.4±0.9	7.8±14.1	2.3±2.0	4.1±3.9	4.8±4.1	4.2±2.8
	Min-max	0.3-6.9	1.5-50.6	0.3-3.1	0.3-46.1	0.5-5.6	0.4-9.7	0.3-12.0	1.0-9.2
Nitrate (mg L <sup>-1</sup> )	Mean ±sd	1.0±0.2	0.9±0.2	1.3±0.9	1.1±0.2	1.1±0.2	1.1±0.3	1.1±0.2	1.1±0.2
	Min-max	0.7-1.6	0.2-1.1	0.8-4.2	0.9-1.5	0.8-1.4	0.9-1.8	0.8-1.4	0.8-1.4
Phosphate (mg L <sup>-1</sup> )	Mean ±sd	0.03±0.01	0.04±0.05	0.03±0.01	0.03±0.01	0.06±0.08	0.04±0.03	0.12±0.27	0.03±0.01
	Min-max	0.02-0.05	0.02-0.19	0.02-0.05	0.02-0.05	0.02-0.24	0.02-0.13	0.02-0.89	0.02-0.04

**Supplementary Tab. 2.** Species presence and its occurrence (percentage of sampling dates present) in each pond.

	P1-PR	P2-90	LH1-90	LH2-03	SH1-98	SH2-03	SH3-PR	SH4-90
<b>ROTIFERA</b>								
<i>Anuraeopsis fissa</i> Gosse, 1851	42.9	14.3	16.7	9.1	0	0	0	16.7
Bdelloidea	100	100	58.3	81.8	85.7	100	44.4	50.0
<i>Brachionus angularis</i> Gosse, 1851	0	0	0	0	0	0	11.1	0
<i>Brachionus calyciflorus</i> Pallas, 1776	0	0	16.7	0	0	0	0	16.7
<i>Brachionus ibericus</i> Ciroso-Perez <i>et al.</i> , 2001	14.3	0	0	0	0	0	0	0
<i>Brachionus plicatilis</i> Müller, 1786	21.4	50.0	8.3	9.1	0	0	55.6	0
<i>Brachionus quadridentatus brevispinus</i> Ehrenberg, 1832	0	42.9	0	0	0	0	0	0
<i>Brachionus urceolaris</i> Müller, 1773	0	7.1	0	0	0	0	0	0
<i>Brachionus variabilis</i> Hempel, 1896	0	0	0	9.1	14.3	11.1	0	0
<i>Cephalodella catellina</i> (Müller, 1786)	7.1	0	0	54.5	14.3	55.6	66.7	66.7
<i>Cephalodella cf. cyclops</i> Wulfert, 1937	0	0	0	27.3	0	0	0	0
<i>Cephalodella cf. intuta</i> Myers, 1924	14.3	0	0	0	0	0	0	0
<i>Cephalodella gibba</i> (Ehrenberg, 1832)	28.6	21.4	100	0	57.1	66.7	0	100
<i>Cephalodella cf. gracilis</i> (Ehrenberg, 1832)	0	0	0	0	0	22.2	0	0
<i>Cephalodella</i> sp.	14.3	0	0	0	0	0	0	0
<i>Collotheca</i> sp.	7.1	0	0	0	0	0	0	0
<i>Colurella adriatica</i> Ehrenberg, 1831	64.3	71.4	33.3	9.1	0	0	88.9	0
<i>Colurella colurus</i> (Ehrenberg, 1830)	0	0	33.3	9.1	57.1	44.4	11.1	66.7
<i>Colurella uncinata</i> (Müller, 1773)	0	0	0	18.2	0	0	0	0
<i>Cupelopagis vorax</i> (Leidy, 1857)	7.1	0	0	0	0	0	0	0
<i>Encentrum cf. marinum</i> (Dujardin, 1841)	0	0	0	0	0	0	0	16.7
<i>Encentrum saundersiae</i> (Hudson, 1885)	0	0	0	0	0	22.2	0	0
<i>Eosphora ehrenbergi</i> Weber, 1918	0	7.1	0	0	0	0	0	0
<i>Eosphora najas</i> Ehrenberg, 1830	7.1	0	0	0	0	0	0	0
<i>Euchlanis meneta</i> Myers, 1930	7.1	0	0	0	0	0	0	0
<i>Hexarthra fennica</i> (Levander, 1892)	0	21.4	58.3	63.6	57.1	66.7	11.1	16.7
<i>Hexarthra oxyuris</i> (Sernov, 1903)	42.9	0	0	0	0	0	0	0
<i>Keratella tropica</i> (Apstein, 1907)	64.3	0	33.3	18.2	14.3	11.1	55.6	16.7
<i>Lecane cf. abanica</i> Segers, 1994	0	7.1	0	0	0	0	0	0
<i>Lecane aculeata</i> (Jakubski, 1912)	7.1	0	0	0	0	0	0	0
<i>Lecane bulla</i> (Gosse, 1851)	64.3	71.4	50.0	9.1	0	0	0	0
<i>Lecane closterocerca</i> (Schmarda, 1859)	85.7	92.9	66.7	0	0	0	0	16.7
<i>Lecane curvicornis</i> (Murray, 1913)	0	0	16.7	0	0	0	0	0
<i>Lecane decipiens</i> (Murray, 1913)	7.1	0	0	0	0	0	0	0
<i>Lecane furcata</i> (Murray, 1913)	21.4	0	8.3	0	0	0	0	0
<i>Lecane grandis</i> (Murray, 1913)	0	0	0	0	0	0	33.3	0
<i>Lecane hamata</i> (Stokes, 1896)	42.9	57.1	8.3	0	71.4	0	0	83.3
<i>Lecane hornemanni</i> (Ehrenberg, 1834)	0	14.3	0	0	0	0	0	16.7
<i>Lecane inermis</i> (Bryce 1892)	0	0	0	0	0	22.2	0	0
<i>Lecane inopinata</i> Harring and Myers, 1926	7.1	0	8.3	0	0	0	0	0

	P1-PR	P2-90	LH1-90	LH2-03	SH1-98	SH2-03	SH3-PR	SH4-90
<i>Lecane lamellata</i> (Daday, 1893)	0	35.7	0	0	0	0	0	0
<i>Lecane latissima</i> Yamamoto 1955	0	0	41.7	0	0	0	0	50.0
<i>Lecane luna</i> (Müller, 1776)	21.4	50.0	41.7	0	0	0	0	0
<i>Lecane nana</i> (Murray, 1913)	7.1	42.9	0	0	42.9	33.3	0	100
<i>Lecane punctata</i> (Murray, 1913)	7.1	28.6	0	0	0	0	0	0
<i>Lecane pyriformis</i> (Daday, 1905)	14.3	21.4	33.3	0	0	0	0	83.3
<i>Lecane quadridentata</i> (Ehrenberg, 1832)	7.1	0	0	0	0	0	0	0
<i>Lepadella acuminata</i> (Ehrenberg, 1834)	14.3	0	0	0	0	0	0	0
<i>Lepadella patella</i> (Müller, 1786)	78.6	57.1	75.0	9.1	42.9	11.1	0	83.3
<i>Lepadella triptera</i> (Ehrenberg, 1830)	7.1	28.6	0	0	0	0	0	0
<i>Lindia torulosa</i> (Dujardin, 1841)	7.1	0	0	18.2	42.9	44.4	33.3	33.3
<i>Lophocharis salpina</i> (Ehrenberg, 1834)	42.9	21.4	41.7	9.1	0	0	0	0
<i>Mytilina ventralis</i> (Ehrenberg, 1832)	14.3	0	0	0	0	0	0	0
<i>Notholca acuminata</i> (Ehrenberg, 1832)	14.3	0	16.7	18.2	0	0	0	0
<i>Notholca squamula</i> (Müller, 1786)	7.1	28.6	16.7	0	85.7	0.0	88.9	50.0
<i>Platylas quadricornis</i> (Ehrenberg, 1832)	7.1	0	0	0	0	0	0	0
<i>Pleurotrocha petromyzon</i> Ehrenberg, 1830	0	0	0	9.1	0	0	0	0
<i>Polyarthra dolichoptera</i> Idelson, 1925	92.9	28.6	83.3	9.1	0	0	33.3	16.7
<i>Proales</i> sp.	0	7.1	0	0	0	0	0	0
cf. <i>Ptygura</i> sp.	7.1	0	8.3	0	0	0	0	0
<i>Ptygura</i> cf. <i>longicornis</i> (Davis, 1867)	14.3	57.1	0	0	0	0	0	16.7
<i>Squatinella rostrum</i> (Schmarda, 1846)	14.3	7.1	0	0	0	0	0	0
<i>Synchaeta oblonga</i> Ehrenberg, 1832	7.1	57.1	25.0	0	0	0	0	0
<i>Synchaeta pectinata</i> Ehrenberg, 1832	35.7	0	16.7	0	0	0	0	0
<i>Testudinella patina</i> (Hermann, 1783)	0	28.6	50.0	0	0	0	11.1	33.3
<i>Trichocerca</i> cf. <i>elongata</i> (Gosse, 1886)	7.1	0	41.7	9.1	0	0	0	0
<i>Trichocerca pusilla</i> (Lauterborn, 1898)	28.6	28.6	0	0	0	0	0	16.7
<i>Trichocerca rattus</i> (Müller, 1776)	28.6	0	0	0	0	0	0	0
<i>Trichocerca weberi</i> (Jennings, 1903)	14.3	7.1	0	0	0	0	0	0
<i>Trichocerca</i> sp.	0	7.1	0	0	0	0	0	0
<i>Tripleuchlanis</i> sp.	7.1	0	0	0	0	0	0	0

## CRUSTACEA

### COPEPODA

<i>Tropocyclops prasinus</i> (Fischer, 1860)	92.9	0	0	36.4	0	0	0	83.3
<i>Acanthocyclops americanus</i> (Marsh, 1892)	85.7	100	0	27.3	14.3	33.3	66.7	16.7
<i>Eucyclops serrulatus</i> (Fischer, 1851)	28.6	0	0	18.2	14.3	0	0	0
<i>Eucyclops speratus</i> (Lilljeborg, 1901)	0	0	8.3	0	0	44.4	0	0
<i>Diacyclops bisetosus</i> (Rehberg, 1880)	0	0	25.0	54.5	0	55.6	44.4	66.7
<i>Diacyclops bicuspidatus</i> (Claus, 1857)	0	0	41.7	0	14.3	0	11.1	33.3

	P1-PR	P2-90	LH1-90	LH2-03	SH1-98	SH2-03	SH3-PR	SH4-90
<i>Metacyclops minutus</i> (Claus, 1863)	0	0	41.7	0	42.9	0	0	0
cf. <i>Speocyclops</i>	0	0	0	0	57.1	0	0	0
<i>Horsielia brevicornis</i> (van Dowe, 1905)	7.1	7.1	0	0	0	0	0	0
Harpacticoida	0	14.3	0	0	0	0	0	0
Calanoida	0	7.1	8.3	0	0	0	0	0
<b>ANOSTRACA</b>								
<i>Tanymastix stagnalis</i> (Linnaeus, 1758)	0	0	0	0	85.7	0	0	0
<b>CLADOCERA</b>								
<i>Alona rectangula</i> Sars, 1862	14.3	28.6	0	0	14.3	0	0	0
<i>Alona rustica</i> Scott, 1895	7.1	0	0	0	0	0	0	0
<i>Chydorus sphaericus</i> (Müller, 1776)	78.6	7.1	100	27.3	0	11.1	0	0
<i>Pleuroxus aduncus</i> (Jurine, 1820)	21.4	0	0	0	0	0	0	0
<i>Ceriodaphnia quadrangula</i> Müller, 1785	35.7	0	0	0	0	0	0	0
<i>Ceriodaphnia reticulata</i> (Jurine, 1820)	7.1	0	75.0	18.2	0	0	0	0
<i>Macrothrix laticornis</i> (Jurine, 1820)	7.1	0	0	0	0	0	0	0
<i>Megafenestra aurita</i> (Fischer, 1849)	0	0	16.7	0	0	0	0	0
<i>Scapholeberis rammeri</i> Dumont and Pensaert, 1983	14.3	0	0	0	0	0	0	0
<i>Simocephalus vetulus</i> (Müller, 1776)	35.7	0	75.0	0	0	0	0	0
<i>Moina macrocopa</i> (Straus, 1820)	0	0	0	0	14.3	0	0	0
<i>Moina</i> sp.	0	0	0	0	0	0	0	16.7
<i>Daphnia magna</i> Straus, 1820	57.1	0	0	90.9	42.9	77.8	66.7	50.0
<i>Daphnia</i> cf. <i>pulicaria</i> Forbes, 1893	7.1	7.1	83.3	0	0	0	0	33.3