**Supplementary Table S1.** Results of one-way ANOSIM and SIMPER analysis on the zooplankton abundance between different stations.

| | ANOSIM | | | | |
|---|---|---|---|---|---|
| **Groups** | ***R*** | ***p*** | **Most discriminating species** | **SIMPER average dissimilarity** | **Contribution (%)** |
| $S_1$ versus $S_2$ | 1.00 | 0.096 | *Cyclops nanus* | 2.42 | 15.55 |
| $S_1$ versus $S_3$ | 0.926 | 0.099 | *Brachionus* sp. | 1.88 | 14.52 |
| $S_1$ versus $S_4$ | 1.00 | 0.103 | *Keratella cochlearis* | 3.03 | 12.3 |
| $S_1$ versus $S_5$ | 1.00 | 0.109 | *Mesocyclops leuckarti* | 2.83 | 15.22 |
| $S_1$ versus $S_6$ | 1.00 | 0.099 | Nauplii | 3.77 | 14.3 |
| $S_1$ versus $S_7$ | 1.00 | 0.099 | *Brachionus calyciflorus* | 3.79 | 19.1 |
| $S_1$ versus $S_8$ | 1.00 | 0.100 | *Diaptomus gracilis* | 1.97 | 10.11 |
| $S_1$ versus $S_9$ | 1.00 | 0.096 | *Brachionus calyciflorus* | 3.79 | 18.34 |
| $S_1$ versus $S_{10}$ | 1.00 | 0.095 | *Cyclops nanus* | 2.32 | 13.48 |
| $S_2$ versus $S_3$ | 0.741 | 0.099 | Nauplii | 1.66 | 13.14 |
| $S_2$ versus $S_4$ | 1.00 | 0.102 | *Keratella cochlearis* | 3.37 | 14.29 |
| $S_2$ versus $S_5$ | 1.00 | 0.102 | *Diaphanosoma sarsi* | 2.89 | 17.09 |
| $S_2$ versus $S_6$ | 1.00 | 0.103 | Nauplii | 4.75 | 19.57 |
| $S_2$ versus $S_7$ | 1.00 | 0.097 | *Brachionus calyciflorus* | 3.33 | 14.09 |
| $S_2$ versus $S_8$ | 0.482 | 0.100 | *Diaptomus gracilis* | 2.17 | 14.74 |
| $S_2$ versus $S_9$ | 1.00 | 0.100 | *Brachionus calyciflorus* | 3.33 | 18.12 |
| $S_2$ versus $S_{10}$ | 0.741 | 0.099 | *Diaptomus gracilis* | 2.53 | 21.49 |
| $S_3$ versus $S_4$ | 1.00 | 0.100 | *Mesocyclops leuckarti* | 3.30 | 14.09 |
| $S_3$ versus $S_5$ | 1.00 | 0.100 | *Brachionus quadridentatus* | 1.73 | 9.774 |
| $S_3$ versus $S_6$ | 1.00 | 0.103 | *Brachionus rubens* | 3.44 | 13.06 |
| $S_3$ versus $S_7$ | 1.00 | 0.098 | *Brachionus calyciflorus* | 2.89 | 13.68 |
| $S_3$ versus $S_8$ | 0.963 | 0.104 | *Diaptomus gracilis* | 2.01 | 11.16 |
| $S_3$ versus $S_9$ | 1.00 | 0.099 | *Brachionus calyciflorus* | 2.89 | 14.97 |
| $S_3$ versus $S_{10}$ | 1.00 | 0.099 | *Diaptomus gracilis* | 2.34 | 17.36 |
| $S_4$ versus $S_5$ | 1.00 | 0.104 | *Mesocyclops leuckarti* | 4.88 | 16.69 |
| $S_4$ versus $S_6$ | 1.00 | 0.102 | *Brachionus rubens* | 5.33 | 19.69 |
| $S_4$ versus $S_7$ | 1.00 | 0.097 | *Brachionus rubens* | 3.59 | 12.53 |
| $S_4$ versus $S_8$ | 1.00 | 0.100 | *Brachionus rubens* | 3.27 | 11.84 |
| $S_4$ versus $S_9$ | 1.00 | 0.096 | *Brachionus rubens* | 4.05 | 14.82 |
| $S_4$ versus $S_{10}$ | 1.00 | 0.098 | *Brachionus rubens* | 3.19 | 12.36 |
| $S_5$ versus $S_6$ | 1.00 | 0.102 | *Keratella cochlearis* | 2.89 | 13.08 |
| $S_5$ versus $S_7$ | 1.00 | 0.098 | *Diaphanosoma sarsi* | 3.49 | 15.54 |
| $S_5$ versus $S_8$ | 0.519 | 0.103 | Nauplii | 1.94 | 14.62 |
| $S_5$ versus $S_9$ | 1.00 | 0.097 | *Brachionus calyciflorus* | 3.10 | 16.9 |
| $S_5$ versus $S_{10}$ | 1.00 | 0.104 | *Diaphanosoma sarsi* | 2.55 | 17.69 |
| $S_6$ versus $S_7$ | 1.00 | 0.100 | *Brachionus calyciflorus* | 4.63 | 16.73 |
| $S_6$ versus $S_8$ | 1.00 | 0.097 | Nauplii | 4.79 | 20.51 |
| $S_6$ versus $S_9$ | 1.00 | 0.099 | *Brachionus calyciflorus* | 4.63 | 16.57 |
| $S_6$ versus $S_{10}$ | 1.00 | 0.098 | Nauplii | 3.73 | 15.49 |
| $S_7$ versus $S_8$ | 1.00 | 0.099 | *Brachionus quadridentatus* | 3.01 | 14.58 |
| $S_7$ versus $S_9$ | 1.00 | 0.099 | *Mesocyclops leuckarti* | 2.14 | 16.32 |
| $S_7$ versus $S_{10}$ | 1.00 | 0.095 | *Brachionus calyciflorus* | 2.97 | 17.85 |

| | | | | | |
|---|---|---|---|---|---|
| $S_8$ versus $S_9$ | 1.00 | 0.101 | *Brachionus quadridentatus* | 2.81 | 16.35 |
| $S_8$ versus $S_{10}$ | 0.296 | 0.198 | *Brachionus quadridentatus* | 2.24 | 17.53 |
| $S_9$ versus $S_{10}$ | 1.00 | 0.096 | *Brachionus calyciflorus* | 2.97 | 23.2 |

**Supplementary Table S2.** Average dissimilarity and discriminating species in each station and season using SIMPER analysis.

| **Average dissimilarity (%)** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **$S_1$** | | $S_2$ | | $S_3$ | | $S_4$ | |
| 36.53 | | 20.22 | | 26.69 | | 34.04 | |
| **Contributory species** | | | | | | | |
| $S_1$ | | $S_2$ | | $S_3$ | | $S_4$ | |
| Species | (%) | Species | (%) | Species | (%) | Species | (%) |
| *Brachionus calyciflorus* | 20.20 | *Diaptomus* sp. | 17.70 | *Cyclops nanus* | 14.27 | *Brachionus calyciflorus* | 12.18 |
| B*rachionus* sp. | 10.12 | *Brachionus calyciflorus* | 13.21 | *Brachionus quadridentatus* | 12.88 | *Cyclops nanus* | 10.77 |
| *Diaptomus* sp | 9.11 | *Brachionus quadridentatus* | 11.02 | *Brachionus urceolaris* | 11.46 | *Diaphanosoma sarsi* | 9.41 |
| *Brachionus quadridentatus* | 9.10 | *Diaphanosoma sarsi* | 11.01 | Nauplii | 11.43 | *Brachionus urceolaris* | 9.22 |
| *Cyclops nanus* | 9.07 | *Cyclops nanus* | 10.99 | *Asplanchna sieboldi* | 9.98 | *Ceriodaphnia cornuta* | 9.15 |
| Nauplii | 7.09 | *Cyclops* sp. | 8.05 | *Cyclops* sp. | 8.55 | *Brachionus quadridentatus* | 9.09 |
| *Diaphanosoma sarsi* | 7.06 | *Brachionus rubens* | 7.39 | *Mesocyclops leuckarti* | *7.13* | *Cyclops* sp. | 9.01 |
| *Mesocyclops leuckarti* | *7.05* | *Bosmina* sp. | 5.89 | *Brachionus calyciflorus* | 5.22 | *Diaptomus* sp. | 8.25 |
| *Brachionus urceolaris* | 7.05 | Nauplii | 5.89 | *Diaptomus* sp. | 4.71 | Nauplii | 7.35 |
| *Bosmina* sp. | 5.08 | | | *Brachionus rubens* | 4.30 | *Keratella cochlearis* | 6.11 |
| **Total** | **90.90** | | **91.14** | | | | **90.52** |
| **Average dissimilarity (%)** | | | | | | | |
| $S_5$ | | $S_6$ | | $S_7$ | | $S_8$ | |
| 36.33 | | 24.42 | | 26.58 | | 23.89 | |
| **Contributory species** | | | | | | | |
| $S_5$ | | $S_6$ | | $S_7$ | | $S_8$ | |
| *Bosmina* sp. | 21.33 | *Diaphanosoma sarsi* | 18.89 | *Diaptomus* sp. | 16.20 | *Brachionus calyciflorus* | 19.24 |
| *Ceriodaphnia cornuta* | 12.82 | *Bosmina* sp. | 14.07 | *Diaptomus gracilis* | 16.15 | *Diaptomus gracilis* | 17.81 |
| *Diaptomus* sp. | 9.64 | *Brachionus rubens* | 11.25 | *Diaphanosoma sarsi* | 13.21 | *Diaphanosoma sarsi* | 15.86 |
| *Diaptomus gracilis* | 8.44 | *Keratella cochlearis* | 10.95 | *Brachionus urceolaris* | 8.79 | *Cyclops nanus* | 10.46 |
| *Diaphanosoma sarsi* | 7.78 | Nauplii | 10.94 | *Brachionus* sp. | 8.72 | *Diaptomus* sp. | 7.70 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Cyclops nanus* | 7.51 | *Ceriodaphnia cornuta* | 7.84 | *Cyclops nanus* | 7.32 | *Ceriodaphnia cornuta* | 7.02 |
| *Brachionus rubens* | 7.28 | *Diaptomus* sp. | 7.61 | *Mesocyclops leuckarti* | 7.31 | *Cyclops* sp. | 5.32 |
| *Mesocyclops leuckarti* | 5.76 | *Cyclops nanus* | 7.46 | *Bosmina* sp. | 5.80 | *Brachionus rubens* | 5.31 |
| *Brachionus* sp. | 5.38 | *Brachionus calyciflorus* | 6.18 | *Cyclops* sp. | 4.39 | *Bosmina* sp. | 4.82 |
| *Cyclops* sp. | 5.27 | | | | | | |
| *Brachionus calyciflorus* | 5.05 | | | | | | |
| **Total** | **96.26** | | **95.18** | | | | **93.54** |
| **Average dissimilarity (%)** | | | | | | | |
| $S_9$ | | $S_{10}$ | | December | | February | |
| 22.27 | | 22.41 | | 23.26 | | 20.44 | |
| **Contributory species** | | | | | | | |
| $S_9$ | | $S_{10}$ | | December | | February | |
| Species | (%) | Species | (%) | Species | (%) | Species | (%) |
| *Diaptomus gracilis* | 15.57 | *Diaptomus gracilis* | 21.4 | *Diaptomus gracilis* | 10.59 | *Brachionus calyciflorus* | 13.84 |
| *Brachionus urceolaris* | 14 | *Diaphanosoma sarsi* | 14.35 | Nauplii | 9.22 | *Brachionus rubens* | 9.67 |
| *Diaptomus* sp. | 12.11 | Nauplii | 10.84 | *Brachionus calyciflorus* | 9.00 | Nauplii | 8.97 |
| *Diaphanosoma sarsi* | 10.84 | *Brachionus calyciflorus* | 9.12 | *Bosmina* sp. | 8.55 | *Brachionus urceolaris* | 8.13 |
| *Cyclops nanus* | 9.50 | *Bosmina* sp. | 7.40 | *Ceriodaphnia cornuta* | 7.62 | *Brachionus quadridentatus* | 8.02 |
| *Mesocyclops leuckarti* | 7.07 | *Ceriodaphnia cornuta* | 6.05 | *Brachionus quadridentatus* | 7.45 | *Mesocyclops leuckarti* | 7.43 |
| Nauplii | 6.90 | *Brachionus rubens* | 5.54 | *Mesocyclops leuckarti* | 7.18 | *Bosmina* sp. | 6.74 |
| *Brachionus rubens* | 5.17 | *Brachionus quadridentatus* | 5.44 | *Diaphanosoma sarsi* | 6.75 | *Diaphanosoma sarsi* | 6.73 |
| *Cyclops* sp. | 5.09 | *Cyclops nanus* | 5.29 | *Brachionus rubens* | 6.21 | *Ceriodaphnia cornuta* | 6.45 |
| *Brachionus quadridentatus* | 4.77 | *Cyclops* sp. | 5.28 | *Diaptomus* sp. | 6.06 | *Keratella cochlearis* | 5.94 |
| | | *Diaptomus* sp. | *5.19* | *Brachionus* sp. | 6.02 | *Diaptomus* sp. | 5.08 |
| | | | | *Cyclops nanus* | 5.69 | *Cyclops nanus* | 5.05 |
| **Total** | **91.03** | | **95.90** | | **90.35** | | **92.04** |

**Supplementary Table S3.** Pearson's correlation coefficient among ecological parameters, zooplankton abundance and diversity indices (a) December (b) February

| | **T** | **pH** | **DO** | **TR** | **TDS** | **N** | **P** | **R** | **CP** | **CC** | **NP** | **TZ** | **H'** | **e** | **J** | **D** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | 1 | | | | | | | | | | | | | | | |
| pH | -0.253 | 1 | | | | | | | | | | | | | | |
| DO | -0.207 | 0.836 | 1 | | | | | | | | | **a** | | | | |
| TR | 0.703 | -0.553 | -0.457 | 1 | | | | | | | | | | | | |
| TDS | 0.177 | -0.124 | -0.006 | 0.198 | 1 | | | | | | | | | | | |
| N | -0.275 | -0.534 | -0.288 | 0.294 | 0.074 | 1 | | | | | | | | | | |
| P | -0.163 | -0.356 | -0.151 | 0.203 | 0.231 | 0.673 | 1 | | | | | | | | | |
| R | -0.090 | -0.218 | -0.257 | 0.251 | 0.259 | 0.524 | 0.281 | 1 | | | | | | | | |
| CP | -0.140 | -0.729 | -0.555 | 0.152 | 0.279 | **0.719** | 0.324 | 0.539 | 1 | | | | | | | |
| CC | -0.528 | 0.070 | 0.325 | -0.293 | 0.416 | 0.397 | 0.214 | -0.098 | 0.332 | 1 | | | | | | |
| NP | 0.098 | -0.158 | 0.094 | 0.392 | -0.030 | 0.528 | 0.291 | 0.553 | 0.162 | -0.150 | 1 | | | | | |
| TZ | -0.297 | -0.366 | -0.162 | 0.150 | 0.400 | **0.809** | 0.416 | **0.797** | **0.798** | 0.449 | 0.515 | 1 | | | | |
| H' | -0.469 | -0.160 | -0.189 | -0.042 | 0.041 | **0.602** | **0.826** | 0.552 | 0.291 | 0.053 | 0.295 | 0.481 | 1 | | | |
| e | -0.131 | -0.227 | 0.029 | -0.118 | -0.224 | 0.208 | **0.678** | -0.252 | -0.004 | -0.026 | 0.051 | -0.134 | 0.461 | 1 | | |
| J | -0.481 | 0.001 | -0.161 | -0.087 | -0.014 | 0.446 | **0.692** | 0.537 | 0.122 | -0.051 | 0.216 | 0.355 | **0.965** | 0.319 | 1 | |
| D | 0.468 | 0.266 | 0.166 | -0.004 | -0.081 | **-0.756** | **-0.910** | -0.478 | -0.403 | -0.230 | -0.352 | -0.567 | **-0.961** | -0.533 | **-0.868** | 1 |

| | **T** | **pH** | **DO** | **TR** | **TDS** | **N** | **P** | **R** | **CP** | **CC** | **NP** | **TZ** | **H'** | **e** | **J** | **D** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | 1 | | | | | | | | | | | | | | | |
| pH | -0.601 | 1 | | | | | | | | | | | | | | |
| DO | -0.549 | 0.778 | 1 | | | | | | | | | | | | | |
| TR | 0.902 | -0.695 | -0.567 | 1 | | | | | | | | | | | | |
| TDS | -0.169 | 0.004 | -0.066 | 0.032 | 1 | | | | | | | | | | | |
| N | -0.054 | -0.495 | -0.277 | 0.090 | 0.153 | 1 | | | | | | | | | | |
| P | 0.008 | -0.342 | 0.038 | 0.168 | 0.225 | 0.632 | 1 | | | | | | | | | |
| R | 0.176 | 0.315 | 0.056 | 0.028 | 0.355 | -0.176 | -0.471 | 1 | | | | | | | | |
| CP | -0.131 | -0.482 | -0.270 | 0.130 | 0.238 | 0.418 | 0.190 | -0.382 | 1 | | | | | | | |
| CC | -0.035 | -0.400 | -0.199 | 0.025 | 0.070 | 0.474 | **0.847** | **-0.645** | 0.178 | 1 | | | | | | |
| NP | 0.291 | 0.110 | 0.079 | 0.046 | 0.019 | -0.246 | -0.541 | **0.798** | -0.186 | **-0.629** | 1 | | | | | |
| TZ | 0.161 | -0.409 | -0.286 | 0.161 | 0.504 | 0.456 | 0.244 | 0.320 | 0.497 | 0.196 | 0.436 | 1 | | | | |
| H' | 0.318 | -0.264 | -0.349 | 0.451 | 0.367 | 0.353 | 0.572 | -0.140 | 0.060 | 0.474 | -0.490 | 0.093 | 1 | | | |
| e | -0.266 | 0.440 | 0.113 | -0.320 | -0.056 | -0.016 | 0.245 | -0.130 | -0.392 | 0.402 | -0.483 | -0.285 | 0.436 | 1 | | |
| J | 0.486 | -0.455 | -0.411 | **0.669** | 0.355 | 0.316 | 0.470 | -0.141 | 0.178 | 0.283 | -0.384 | 0.067 | **0.900** | 0.034 | 1 | |
| D | -0.200 | 0.107 | 0.254 | -0.297 | -0.304 | -0.317 | -0.576 | 0.143 | 0.080 | -0.521 | 0.543 | -0.002 | **-0.969** | **-0.638** | **-0.776** | 1 |

**b**

Abbreviations: T- Temperature; TR- Transparency; N- Nitrates; P- phosphates; R- Rotifera; CP- Copepoda; CC- Cladocera; NP- Nauplii; H'- Shannon-Weiner Diversity Index; e- Evenness Index; J- Margalef Species Richness Index; D- Dominance Index.