

Supplementary Data

Supplementary Table S1. Total abundance (cell L⁻¹), total biovolume (µm³ L⁻¹), grazing rates (ml ind⁻¹ h⁻¹) and diversity indices: richness (S), Shannon-Wiener (H') and Pielou's evenness (J') for each size fraction. Values are mean ± standard deviation, n=5 in all treatments except for the start treatment where n=1.

<i>Fraction <5 µm</i>	<i>Start</i>	<i>Control</i>	<i>Eudiaptomus sp.</i>	<i>D. longispina</i>
Total Abundance (cell L ⁻¹)	1.36x10 ⁶	3.59x10 ⁶ ± 1.46x10 ⁶	2.17x10 ⁶ ± 9.20 x10 ⁵	2.47x10 ⁶ ± 2.06 x10 ⁶
Total Biovolume (cell L ⁻¹)	6.62x10 ⁸	3.16x10 ⁸ ± 1.08x10 ⁸	2.15x10 ⁸ ± 7.34 x10 ⁷	2.97x10 ⁸ ± 1.55x10 ⁸
Grazing rate (ml ind ⁻¹ h ⁻¹)			0.66 ± 0.67	0.92 ± 0.60
Richness (S)	25	25.60 ± 2.88	22.6 ± 1.34	21.8 ± 1.10
Shannon index Abundance (H'a)	2.18	1.21 ± 0.31	1.27 ± 0.38	1.33 ± 0.24
Shannon index Biovolume (H'b)	1.54	1.66 ± 0.15	1.57 ± 0.25	1.40 ± 0.16
Evenness index Abundance (J' a)	0.68	0.37 ± 0.08	0.41 ± 0.12	0.43 ± 0.08
Evenness index Biovolume (J' b)	0.48	0.51 ± 0.04	0.50 ± 0.08	0.46 ± 0.06

<i>Fraction 5-30 µm</i>	<i>Start</i>	<i>Control</i>	<i>Eudiaptomus sp.</i>	<i>D. longispina</i>
Total Abundance (cell L ⁻¹)	2.28 x10 ⁵	1.01x10 ⁶ ± 8.85x10 ⁵	8.03x10 ⁵ ± 6.54x10 ⁵	6.07x10 ⁵ ± 4.42x10 ⁵
Total Biovolume (cell L ⁻¹)	2.38 x10 ⁸	2.85x10 ⁸ ± 1.36x10 ⁸	1.53x10 ⁸ ± 6.99x10 ⁷	2.15x10 ⁸ ± 1.19x10 ⁸
Grazing rate (ml ind ⁻¹ h ⁻¹)			0.23 ± 1.70	0.54 ± 2.04
Richness (S)	21	25.80 ± 4.02	23.2 ± 3.27	27.2 ± 2.77
Shannon index Abundance (H'a)	2.73	1.55 ± 0.52	1.47 ± 0.36	1.86 ± 0.29
Shannon index Biovolume (H'b)	1.86	1.37 ± 0.66	1.41 ± 0.40	1.29 ± 0.37
Evenness index Abundance (J' a)	0.90	0.48 ± 0.15	0.47 ± 0.11	0.56 ± 0.09
Evenness index Biovolume (J' b)	0.61	0.42 ± 0.20	0.45 ± 0.12	0.39 ± 0.12

<i>Fraction >30 µm</i>	<i>Start</i>	<i>Control</i>	<i>Eudiaptomus sp.</i>	<i>D. longispina</i>
Total Abundance (cell L ⁻¹)	2.97 x 10 ⁵	7.20 x 10 ⁵ ± 2.79 x10 ⁵	5.18 x10 ⁵ ± 1.12x10 ⁵	4.04x10 ⁵ ± 1.62x10 ⁵
Total Biovolume (cell L ⁻¹)	3.61 x 10 ⁸	5.02 x10 ⁸ ± 4.06 x10 ⁸	2.96x10 ⁸ ± 2.32x10 ⁷	4.31x10 ⁸ ± 1.46x10 ⁸
Grazing rate (ml ind ⁻¹ h ⁻¹)			0.41 ± 0.48	1.01 ± 0.77
Richness (S)	24	28.50 ± 3.42	24 ± 5.29	24 ± 4.995
Shannon index Abundance (H'a)	2.53	1.90 ± 0.11	1.99 ± 0.31	2.17 ± 0.31
Shannon index Biovolume (H'b)	1.99	1.24 ± 0.71	1.18 ± 0.36	0.72 ± 0.37
Evenness index Abundance (J' a)	0.80	0.57 ± 0.02	0.63 ± 0.06	0.69 ± 0.09
Evenness index Biovolume (J' b)	0.63	0.37 ± 0.21	0.37 ± 0.09	0.22 ± 0.10

Supplementary Table S2. Results of the two-way ANOVA of total abundance, biovolume, grazing rates and diversity indices for the different treatments (Start, Control, *D. longispina* and *Eudiaptomus sp.*), and the phytoplankton size fractions (< 5µm, 5-30 µm and > 30 µm) and their interactions. Bold values represent statistically significant results.

Total Abundance	Df	Sum of Squares	Mean Square	F value	p-value
Treatment	3	6.09E+12	2.03E+12	2.043	0.126
Fraction	2	4.23E+13	2.03E+12	21.273	8.99e-07 ***
Treatment x Fraction	6	3.07E+12	5.12E+11	0.515	0.793

Residuals	35	3.48E+13	9.94E+11		
Total Biovolume	Df	Sum of Squares	Mean Square	F value	p-value
Treatment	3	1.86E+17	6.20E+16	2.417	0.0828
Fraction	2	2.66E+17	1.33E+17	5.194	0.0106*
Treatment x Fraction	6	1.19E+17	1.98E+16	0.772	0.597
Residuals	35	8.97E+17	2.56E+16		
Grazing rate	Df	Sum of Squares	Mean Square	F value	p-value
Treatment	1	0.75	0.7497	0.486	0.493
Fraction	2	1.17	0.5849	0.379	0.689
Treatment x Fraction	2	0.25	0.1274	0.083	0.921
Residuals	22	33.96	1.5439		
Richness	Df	Sum of Squares	Mean Square	F value	p-value
Treatment	3	83.1	27.68	2.261	0.0985
Fraction	2	33.9	16.97	1.386	0.2634
Treatment x Fraction	6	75.9	12.65	1.033	0.4208
Residuals	35	428.6	12.25		
Shannon index Abundance	Df	Sum of Squares	Mean Square	F value	p-value
Treatment	3	2.575	0.8583	7.646	0.000466***
Fraction	2	4.051	2.0256	18.044	4.12e-06 ***
Treatment x Fraction	6	0.331	0.0551	0.491	0.810545
Residuals	35	3.929	0.1123		
Shannon index Biovolume	Df	Sum of Squares	Mean Square	F value	p-value
Treatment	3	1.38	0.4599	2.687	0.0614
Fraction	2	1.544	0.772	4.51	0.0181*
Treatment x Fraction	6	0.72	0.12	0.701	0.6505
Residuals	35	5.991	0.1712		
Evenness index Abundance	Df	Sum OF Squares	Mean Square	F value	p-value
Treatment	3	0.2881	0.0960	10.2110	5.65e-05 ***
Fraction	2	0.3654	0.1827	19.4260	2.11e-06 ***
Treatment x Fraction	6	0.0353	0.0059	0.6260	0.7080
Residuals	35	0.3292	0.0094		
Evenness index Biovolume	Df	Sum OF Squares	Mean Square	F value	p-value
Treatment	3	0.1391	0.04637	3.157	0.03677*
Fraction	2	0.1782	0.08909	6.066	0.00547**
Treatment x Fraction	6	0.0725	0.01209	0.823	0.55971
Residuals	35	0.5141	0.01469		

Supplementary Table S3. Results of the post hoc comparison tests of total abundance, biovolume, Shannon and Evenness indices among fractions and treatments, derived from two-way ANOVA analysis. Bold type indicates significant results.

<i>Post-hoc test</i>	
Total Abundance by Fraction	p-value
5-30 μm vs <5 μm	<0.001
>30 μm vs <5 μm	<0.001
>30 μm vs 5-30 μm	0.816
Total Biovolume by Fraction	p-value
5-30 μm vs <5 μm	0.333
>30 μm vs <5 μm	0.183
>30 μm vs 5-30 μm	<0.05
Shannon index Abundance by Treatment	p-value
Control vs Start	<0.001
<i>D. longispina</i> vs Start	<0.05
<i>Eudiaptomus</i> sp. vs Start	<0.001
<i>D. longispina</i> vs Control	0.18
<i>Eudiaptomus</i> sp. vs Control	0.981
<i>Eudiaptomus</i> sp. vs <i>D. longispina</i>	0.324
Shannon index Abundance by Fraction	
5-30 μm vs <5 μm	<0.001
>30 μm vs <5 μm	<0.001
>30 μm vs 5-30 μm	<0.05
Shannon index Biovolume by Fraction	p-value
5-30 μm vs <5 μm	0.543
>30 μm vs <5 μm	<0.05
>30 μm vs 5-30 μm	0.147
Evenness index Abundance by Treatment	p-value
Control vs Start	<0.001
<i>D. longispina</i> vs Start	<0.001
<i>Eudiaptomus</i> sp. vs Start	<0.001
<i>D. longispina</i> vs Control	0.057
<i>Eudiaptomus</i> sp. vs Control	0.772
<i>Eudiaptomus</i> sp. vs <i>D. longispina</i>	0.336
Evenness index Abundance by Fraction	
5-30 μm vs <5 μm	<0.05
>30 μm vs <5 μm	<0.001
>30 μm vs 5-30 μm	<0.05
Evenness index Biovolume by Treatment	p-value
Control vs Start	0.323
<i>D. longispina</i> vs Start	<0.05
<i>Eudiaptomus</i> sp. vs Start	0.327
<i>D. longispina</i> vs Control	0.287

<i>Eudiaptomus</i> sp. vs Control	0.999
<i>Eudiaptomus</i> sp. vs <i>D. longispina</i>	0.259
Evenness index Biovolume by Fraction	
5-30 μm vs <5 μm	0.377
>30 μm vs <5 μm	<0.001
>30 μm vs 5-30 μm	<0.05

Supplementary Table S4. Traits abundance composition (cell L⁻¹). Values are mean \pm standard deviation, n=5 in all treatments except for the start treatment where n=1 and the control treatment of the fraction > 30 μm where n=4 .

<i>Fraction <5 μm</i>	<i>Start</i>	<i>Control</i>	<i>Eudiaptomus</i> sp.	<i>D. longispina</i>
Mucilage presence	2.70 $\times 10^5$	2.91 $\times 10^5 \pm 3.03 \times 10^5$	8.46 $\times 10^4 \pm 5.46 \times 10^4$	1.32 $\times 10^5 \pm 6.06 \times 10^4$
Mucilage absence	1.09 $\times 10^6$	3.43 $\times 10^6 \pm 1.32 \times 10^6$	2.09 $\times 10^6 \pm 9.02 \times 10^5$	1.93 $\times 10^6 \pm 1.19 \times 10^6$
Flagella presence	8.23 $\times 10^4$	1.00 $\times 10^5 \pm 4.97 \times 10^4$	8.99 $\times 10^4 \pm 4.08 \times 10^4$	7.21 $\times 10^4 \pm 2.40 \times 10^4$
Flagella absence	1.28 $\times 10^6$	3.62 $\times 10^6 \pm 1.17 \times 10^6$	2.08 $\times 10^6 \pm 9.37 \times 10^5$	1.99 $\times 10^6 \pm 1.20 \times 10^6$
Aerotopes presence	4.76 $\times 10^5$	2.60 $\times 10^6 \pm 1.05 \times 10^6$	1.45 $\times 10^6 \pm 7.71 \times 10^5$	1.43 $\times 10^6 \pm 1.09 \times 10^6$
Aerotopes absence	8.86 $\times 10^5$	1.12 $\times 10^6 \pm 4.53 \times 10^5$	7.19 $\times 10^5 \pm 3.43 \times 10^5$	6.41 $\times 10^5 \pm 1.34 \times 10^5$
Unicellular	8.80 $\times 10^5$	9.76 $\times 10^5 \pm 4.33 \times 10^5$	6.43 $\times 10^5 \pm 3.17 \times 10^5$	5.43 $\times 10^5 \pm 1.70 \times 10^5$
Filaments/colonies	8.91 $\times 10^5$	3.51 $\times 10^6 \pm 1.18 \times 10^6$	2.00 $\times 10^6 \pm 9.42 \times 10^5$	1.90 $\times 10^6 \pm 1.19 \times 10^6$
<i>Fraction 5-30 μm</i>	<i>Start</i>	<i>Control</i>	<i>Eudiaptomus</i> sp.	<i>D. longispina</i>
Mucilage presence	1.29 $\times 10^4$	2.39 $\times 10^5 \pm 2.92 \times 10^5$	1.11 $\times 10^5 \pm 1.00 \times 10^5$	7.95 $\times 10^4 \pm 3.44 \times 10^4$
Mucilage absence	2.15 $\times 10^5$	7.72 $\times 10^5 \pm 7.10 \times 10^5$	6.92 $\times 10^5 \pm 6.22 \times 10^5$	5.27 $\times 10^5 \pm 4.27 \times 10^5$
Flagella presence	9.00 $\times 10^3$	5.03 $\times 10^5 \pm 7.77 \times 10^5$	4.16 $\times 10^5 \pm 4.30 \times 10^5$	2.25 $\times 10^5 \pm 2.24 \times 10^5$
Flagella absence	2.19 $\times 10^5$	5.08 $\times 10^5 \pm 5.80 \times 10^5$	3.88 $\times 10^5 \pm 3.41 \times 10^5$	3.81 $\times 10^5 \pm 2.30 \times 10^5$
Aerotopes presence	3.09 $\times 10^4$	1.55 $\times 10^5 \pm 1.86 \times 10^5$	4.01 $\times 10^4 \pm 6.79 \times 10^4$	2.75 $\times 10^4 \pm 9.73 \times 10^3$
Aerotopes absence	1.97 $\times 10^5$	8.56 $\times 10^5 \pm 7.83 \times 10^5$	7.63 $\times 10^5 \pm 6.23 \times 10^5$	5.79 $\times 10^5 \pm 4.38 \times 10^5$
Unicellular	1.54 $\times 10^5$	7.33 $\times 10^5 \pm 7.04 \times 10^5$	6.70 $\times 10^5 \pm 6.16 \times 10^5$	4.88 $\times 10^5 \pm 4.21 \times 10^5$
Filaments/colonies	1.29 $\times 10^5$	4.70 $\times 10^5 \pm 5.31 \times 10^5$	3.84 $\times 10^5 \pm 3.68 \times 10^5$	3.64 $\times 10^5 \pm 2.37 \times 10^5$
<i>Fraction >30 μm</i>	<i>Start</i>	<i>Control</i>	<i>Eudiaptomus</i> sp.	<i>D. longispina</i>
Mucilage presence	nd	1.00 $\times 10^5 \pm 6.14 \times 10^4$	1.06 $\times 10^5 \pm 6.44 \times 10^4$	5.96 $\times 10^4 \pm 4.83 \times 10^4$
Mucilage absence	2.97 $\times 10^5$	6.20 $\times 10^5 \pm 2.39 \times 10^5$	4.12 $\times 10^5 \pm 1.36 \times 10^5$	3.45 $\times 10^5 \pm 1.47 \times 10^5$
Flagella presence	1.17 $\times 10^5$	3.13 $\times 10^5 \pm 3.18 \times 10^5$	2.22 $\times 10^5 \pm 8.38 \times 10^4$	1.29 $\times 10^5 \pm 8.18 \times 10^4$
Flagella absence	1.79 $\times 10^5$	4.07 $\times 10^5 \pm 7.62 \times 10^4$	2.96 $\times 10^5 \pm 5.00 \times 10^4$	2.76 $\times 10^5 \pm 1.48 \times 10^5$
Aerotopes presence	2.57 $\times 10^4$	2.23 $\times 10^5 \pm 1.08 \times 10^5$	1.37 $\times 10^5 \pm 1.04 \times 10^5$	1.35 $\times 10^5 \pm 7.26 \times 10^4$
Aerotopes absence	2.71 $\times 10^5$	4.97 $\times 10^5 \pm 2.58 \times 10^5$	3.81 $\times 10^5 \pm 1.47 \times 10^5$	2.70 $\times 10^5 \pm 9.70 \times 10^4$
Unicellular	1.91 $\times 10^5$	4.13 $\times 10^5 \pm 2.60 \times 10^5$	2.98 $\times 10^5 \pm 1.32 \times 10^5$	2.11 $\times 10^5 \pm 8.74 \times 10^4$
Filaments/colonies	1.47 $\times 10^5$	3.44 $\times 10^5 \pm 1.01 \times 10^5$	2.68 $\times 10^5 \pm 5.97 \times 10^4$	2.47 $\times 10^5 \pm 1.43 \times 10^5$