

Supplementary Material

Table S1: Stable isotopic signature of *D. magna* of the different dietary treatments at the last sampling time [h]. Shown are the stable isotopes values, the trophic discrimination factors (Δ_{T4}) at the end of the experiment (96 h) as well as the difference between the end and the initial values (δ_{T4-T0}). For *M. aeruginosa* we used the end values at 72 h (after diet switch) due to high mortality rate of *D. magna* fed on the algae.

Time (h)	diet	$\delta^{13}\text{C}$	$\delta^{15}\text{N}$	$\Delta^{13}\text{C}_{T4}$	$\Delta^{15}\text{N}_{T4}$	$\delta^{13}\text{C}_{T4-T0}$	$\delta^{15}\text{N}_{T4-T0}$
0	<i>A. obliquus</i> (Cyano-Medium)	-26.64 ± 0.19	8.54 ± 0.28				
72	<i>M. aeruginosa</i>	-25.06 ± 0.18	9.71 ± 0.72	7.33 ± 0.29	5.74 ± 0.72	1.57 ± 0.25	1.17 ± 0.59
96	<i>P. agardhii</i>	-25.90 ± 0.19	10.47 ± 0.4	6.70 ± 0.08	7.15 ± 0.38	6.58 ± 0.68	0.68 ± 2.42
96	<i>P. rubescens</i>	-26.91 ± 0.15	12.69 ± 1.12	7.41 ± 0.21	7.64 ± 1.12	-0.27 ± 0.26	5.15 ± 0.85
96	<i>T. variabilis</i>	-28.78 ± 0.25	9.16 ± 0.50	2.33 ± 0.26	5.58 ± 0.50	-2.14 ± 0.13	0.61 ± 0.64
96	<i>S. elongatus</i> (green)	-28.14 ± 0.32	9.25 ± 0.57	2.53 ± 0.24	2.17 ± 0.44	5.70 ± 0.68	-1.96 ± 0.9
96	<i>S. elongatus</i> (red)	-28.86 ± 0.16	9.92 ± 0.98	1.65 ± 0.03	6.08 ± 0.98	-2.22 ± 0.20	1.37 ± 1.25
96	<i>A. obliquus</i>	-31.60 ± 0.23	8.21 ± 0.10	1.46 ± 0.16	5.56 ± 0.10	-4.95 ± 0.31	-0.34 ± 0.20

96	<i>C. klinobasis</i>	-31.45 ± 0.21	7.71 ± 0.40	0.59 ± 0.12	0.84 ± 0.49	5.26 ± 0.40	5.47 ± 0.26	-4.81 ± 0.07	-4.92 ± 0.26	-0.83 ± 0.56	-0.17 ± 0.74
96	<i>C. vulgaris</i>	-31.64 ± 0.14	9.19 ± 0.15	0.46 ± 0.2		5.57 ± 0.15		-5.00 ± 0.38		0.65 ± 0.33	
96	starvation	-19.66 ± 0.46	8.06 ± 0.46					1.17 ± 0.59		-0.32 ± 0.51	