

**Table S1:** Results of generalized least squares model (gls) testing for the effect of temperature (T), CO<sub>2</sub>, time and the interaction effect of temperature and CO<sub>2</sub> (T × CO<sub>2</sub>), time and temperature (time × T), time and CO<sub>2</sub> (time × CO<sub>2</sub>) and the interaction of time, temperature and CO<sub>2</sub> (time × T × CO<sub>2</sub>) over the entire course of experimental time. Significant results are in bold.

\*p ≤ 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

Response variable	factor	df residual	t-value	P
(log) Total phytoplankton C (µg L <sup>-1</sup> )	T	136	0.40650	0.6850
	CO <sub>2</sub>	136	-1.41829	0.1484
	time	136	-1.81855	0.0712
	T × CO <sub>2</sub>	136	1.52885	0.1286
	time × T	136	-2.44663	<b>0.0157*</b>
	time × CO <sub>2</sub>	136	2.27327	<b>0.0246*</b>
	time × T × CO <sub>2</sub>	136	1.72325	0.0871
(log) inedible phytoplankton C (µg L <sup>-1</sup> )	T	136	0.46224	0.6446
	CO <sub>2</sub>	136	-1.39230	0.1661
	time	136	-1.84390	0.0674
	T × CO <sub>2</sub>	136	1.51706	0.1316
	time × T	136	-2.23612	<b>0.0270*</b>
	time × CO <sub>2</sub>	136	2.44929	<b>0.0156*</b>
	time × T × CO <sub>2</sub>	136	1.55347	0.1226
Edible phytoplankton C (µg L <sup>-1</sup> )	T	136	-1.722063	0.0873
	CO <sub>2</sub>	136	-1.406631	0.1618
	time	136	-0.113228	0.9100
	T × CO <sub>2</sub>	136	1.019974	0.3096
	time × T	136	-4.374546	<b>&lt;0.001***</b>
	time × CO <sub>2</sub>	136	-4.007652	<b>&lt;0.001***</b>
	time × T × CO <sub>2</sub>	136	2.489965	<b>0.0140*</b>
Inedible flagellates > 100 µm C (µg L <sup>-1</sup> )	T	136	-0.136382	0.8917
	CO <sub>2</sub>	136	-2.221123	0.0280
	time	136	-4.241355	<b>&lt;0.001***</b>
	T × CO <sub>2</sub>	136	0.105978	0.9158
	time × T	136	-2.153234	<b>0.0331*</b>
	time × CO <sub>2</sub>	136	-0.290570	0.7718
	time × T × CO <sub>2</sub>	136	1.341232	0.1821
(log) filamentous cyanobacteria C (µg L <sup>-1</sup> )	T	136	-1.201710	0.2318
	CO <sub>2</sub>	136	1.163015	0.2417
	time	136	-3.039261	<b>0.0029**</b>
	T × CO <sub>2</sub>	136	2.231858	<b>0.0274*</b>
	time × T	136	1.463984	0.1457
	time × CO <sub>2</sub>	136	2.758938	<b>0.0067**</b>
	time × T × CO <sub>2</sub>	136	-1.378534	0.1705
Phytoplankton < 5 µm C (µg L <sup>-1</sup> )	T	136	0.7633037	0.4466
	CO <sub>2</sub>	136	-0.5613302	0.5755
	time	136	1.3070283	0.1934
	T × CO <sub>2</sub>	136	0.7633287	0.4466
	time × T	136	-0.0953977	0.9241
	time × CO <sub>2</sub>	136	1.8449223	0.0672
	time × T × CO <sub>2</sub>	136	-0.0862737	0.9314
Edible flagellates 5-100 µm C (µg L <sup>-1</sup> )	T	136	-2.133546	<b>0.0347*</b>
	CO <sub>2</sub>	136	-2.305907	<b>0.0226*</b>
	time	136	-0.226604	0.8211
	T × CO <sub>2</sub>	136	2.024677	<b>0.0449*</b>
	time × T	136	-2.840604	<b>0.0052**</b>
	time × CO <sub>2</sub>	136	-2.860836	<b>0.0049**</b>
	time × T × CO <sub>2</sub>	136	1.523333	0.1300
Diatom C (µg L <sup>-1</sup> )	T	136	-0.111106	0.9117

	CO <sub>2</sub>	136	1.240776	0.2168
	time	136	1.040369	0.3000
	T x CO <sub>2</sub>	136	-1.576518	0.1172
	time x T	136	-4.124063	<b>&lt;0.001***</b>
	time x CO <sub>2</sub>	136	-3.574167	<b>&lt;0.001***</b>
	time x T x CO <sub>2</sub>	136	2.750142	<b>0.0068**</b>
T. muelleri C (µg L <sup>-1</sup> )	T	136	-1.876498	0.0627
	CO <sub>2</sub>	136	-3.207634	<b>0.0017**</b>
	time	136	-5.623833	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	136	1.778010	0.0776
	time x T	136	-0.608874	0.5436
	time x CO <sub>2</sub>	136	0.709675	0.4791
	time x T x CO <sub>2</sub>	136	-0.180114	0.8573
T. longissimus C (µg L <sup>-1</sup> )	T	136	2.418613	<b>0.0169*</b>
	CO <sub>2</sub>	136	-0.265923	0.7907
	time	136	-1.245801	0.2150
	T x CO <sub>2</sub>	136	-2.377907	<b>0.0188*</b>
	time x T	136	-3.947985	<b>&lt;0.001***</b>
	time x CO <sub>2</sub>	136	-1.727249	0.0864
	time x T x CO <sub>2</sub>	136	3.294387	<b>0.0013**</b>
(log) N. spumigena C (µg L <sup>-1</sup> )	T	101	2.505452	0.0138
	CO <sub>2</sub>	101	0.975317	0.3317
	time	101	1.670423	0.0979
	T x CO <sub>2</sub>	101	-2.127387	<b>0.0358*</b>
	time x T	101	-7.362956	<b>&lt;0.001***</b>
	time x CO <sub>2</sub>	101	-4.247658	<b>&lt;0.001***</b>
	time x T x CO <sub>2</sub>	101	5.098848	<b>&lt;0.001***</b>
Dolichospermum sp. C (µg L <sup>-1</sup> )	T	136	0.651282	0.5160
	CO <sub>2</sub>	136	1.984623	<b>0.0492*</b>
	time	136	5.733659	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	136	-0.873599	0.4346
	time x T	136	1.333287	0.1847
	time x CO <sub>2</sub>	136	0.396260	0.6925
	time x T x CO <sub>2</sub>	136	0.222790	0.8240
(log) Phytoplankton <5 µm only chl a C (µg L <sup>-1</sup> )	T	136	0.495375	0.6211
	CO <sub>2</sub>	136	-0.592927	0.5542
	time	136	2.450446	<b>0.0155*</b>
	T x CO <sub>2</sub>	136	0.948159	0.3447
	time x T	136	-0.597510	0.5512
	time x CO <sub>2</sub>	136	1.412443	0.1601
	time x T x CO <sub>2</sub>	136	-0.118890	0.9055
(log) Pico-cyanobacteria C (µg L <sup>-1</sup> )	T	136	0.922033	0.3581
	CO <sub>2</sub>	136	-0.704094	0.4826
	time	136	3.209547	<b>0.0017**</b>
	T x CO <sub>2</sub>	136	0.827448	0.4094
	time x T	136	0.469603	0.6394
	time x CO <sub>2</sub>	136	0.176067	0.8605
	time x T x CO <sub>2</sub>	136	-0.153293	0.8784
(log) P. cordatum C (µg L <sup>-1</sup> )	T	100	1.902030	0.0600
	CO <sub>2</sub>	100	3.244998	<b>0.0016**</b>
	time	100	2.651227	<b>0.0093**</b>
	T x CO <sub>2</sub>	100	1.062248	0.2907
	time x T	100	-2.404264	<b>0.0180*</b>
	time x CO <sub>2</sub>	100	-2.004831	<b>0.0477*</b>
	time x T x CO <sub>2</sub>	100	1.032104	0.3045
(log) P. micans. C (µg L <sup>-1</sup> )	T	95	-0.531658	0.5962
	CO <sub>2</sub>	95	-2.043635	<b>0.0438*</b>
	time	95	2.8031170	<b>0.0061**</b>
	T x CO <sub>2</sub>	95	-0.100642	0.9200
	time x T	95	-3.877390	<b>&lt;0.001***</b>
	time x CO <sub>2</sub>	95	-5.531063	<b>&lt;0.001***</b>
	time x T x CO <sub>2</sub>	95	1.710434	0.0904

(log) <i>Dinophysis</i> sp. C ( $\mu\text{g L}^{-1}$ )	T	117	-0.5729424	0.5678
	CO <sub>2</sub>	117	-1.6081819	0.1105
	time	117	-0.5294375	0.5975
	T x CO <sub>2</sub>	117	0.1183348	0.9061
	time x T	117	-0.8114814	0.4187
	time x CO <sub>2</sub>	117	-0.9800786	0.3291
	time x T x CO <sub>2</sub>	117	0.5783711	0.5641
	(log) <i>Teleaulax</i> sp. C ( $\mu\text{g L}^{-1}$ )	T	97	0.592606
CO <sub>2</sub>		97	0.995937	0.3218
time		97	-5.818348	<b>&lt;0.001***</b>
T x CO <sub>2</sub>		97	-0.002460	0.9980
time x T		97	-2.147911	<b>0.0342*</b>
time x CO <sub>2</sub>		97	0.143754	0.8860
time x T x CO <sub>2</sub>		97	0.434634	0.6648
<i>D. brightwellii</i> C ( $\mu\text{g L}^{-1}$ )		T	136	0.540498
	CO <sub>2</sub>	136	1.625296	0.1064
	time	136	-1.250117	0.2134
	T x CO <sub>2</sub>	136	-1.009871	0.3144
	time x T	136	-2.357429	<b>0.0198*</b>
	time x CO <sub>2</sub>	136	-2.718498	<b>0.0074**</b>
	time x T x CO <sub>2</sub>	136	1.389876	0.1671
	(log) C:N	T	136	0.10248
CO <sub>2</sub>		136	-2.32444	<b>0.0216*</b>
time		136	-2.75305	<b>0.0067**</b>
T x CO <sub>2</sub>		136	0.65283	0.5150
time x T		136	-1.17532	0.2419
time x CO <sub>2</sub>		136	0.34342	0.7318
time x T x CO <sub>2</sub>		136	0.89226	0.3738
(log) C:P		T	135	0.073795
	CO <sub>2</sub>	135	-0.308615	0.7581
	time	135	-2.036997	<b>0.0436*</b>
	T x CO <sub>2</sub>	135	0.480963	0.6313
	time x T	135	-0.945909	0.3459
	time x CO <sub>2</sub>	135	0.143486	0.8861
	time x T x CO <sub>2</sub>	135	0.637329	0.5250
	(log) N:P	T	135	0.025618
CO <sub>2</sub>		135	0.275553	0.7833
time		135	-1.176182	0.2416
T x CO <sub>2</sub>		135	0.274838	0.7839
time x T		135	-0.517482	0.6057
time x CO <sub>2</sub>		135	0.004110	0.9649
time x T x CO <sub>2</sub>		135	0.322713	0.7474
Total dissolved N ( $\mu\text{mol L}^{-1}$ )		T	136	-1.056225
	CO <sub>2</sub>	136	1.165196	0.2460
	time	136	-2.361684	<b>0.0196*</b>
	T x CO <sub>2</sub>	136	0.173842	0.8622
	time x T	136	0.862194	0.3901
	time x CO <sub>2</sub>	136	-0.948315	0.3447
	time x T x CO <sub>2</sub>	136	-0.090732	0.9278
	PO <sub>4</sub> <sup>3-</sup> ( $\mu\text{mol L}^{-1}$ )	T	136	2.785997
CO <sub>2</sub>		136	0.046277	0.9632
time		136	-1.127801	0.2613
T x CO <sub>2</sub>		136	-2.081611	<b>0.0393*</b>
time x T		136	-2.045220	<b>0.0428*</b>
time x CO <sub>2</sub>		136	-0.217879	0.8279
time x T x CO <sub>2</sub>		136	1.495799	0.1370
Si <sub>4</sub> <sup>2-</sup> ( $\mu\text{mol L}^{-1}$ )		T	136	-0.753690
	CO <sub>2</sub>	136	1.289303	0.1994
	time	136	-1.343862	0.1812
	T x CO <sub>2</sub>	136	-1.132702	0.2593
	time x T	136	1.362630	0.1753
time x CO <sub>2</sub>	136	-1.504951	0.1347	

**Table S2:** Results of generalized least squares model (gls) testing for the effect of temperature (T), CO<sub>2</sub>, and the interaction effect of temperature and CO<sub>2</sub> (T x CO<sub>2</sub>) during the first period. Significant results are in bold. \*p≤ 0.05, \*\* p< 0.01, \*\*\* p< 0.001.

Response variable	factor	df residual	t-value	p
% inedible flagellates > 100 µm on total phytopl. C	T	8	-3.938717	<b>0.0043**</b>
	CO <sub>2</sub>	8	-4.952595	<b>0.0011**</b>
	T x CO <sub>2</sub>	8	1.774507	0.1139
% edible flagellates 5-100 µm on total phytopl. C	T	8	-5.186859	<b>&lt;0.001***</b>
	CO <sub>2</sub>	8	-5.028351	<b>0.0010**</b>
	T x CO <sub>2</sub>	8	2.562598	<b>0.0335*</b>
% filamentous cyanobacteria on total phytopl. C	T	8	-0.845068	0.4226
	CO <sub>2</sub>	8	3.644613	<b>0.0065**</b>
	T x CO <sub>2</sub>	8	0.766174	0.4656
% diatoms on total phytopl. C	T	8	-1.854671	0.1008
	CO <sub>2</sub>	8	0.307481	0.7663
	T x CO <sub>2</sub>	8	-1.364703	0.2095
% phytopl. < 5 µm on total phytopl. C	T	8	3.831281	<b>0.0050**</b>
	CO <sub>2</sub>	8	0.972288	0.3594
	T x CO <sub>2</sub>	8	-1.773242	0.1141
(log) Total phytoplankton C (µg L <sup>-1</sup> )	T	8	-0.73772	0.4818
	CO <sub>2</sub>	8	-0.86633	0.4115
	T x CO <sub>2</sub>	8	3.73264	0.0058***
Inedible phytoplankton C (µg L <sup>-1</sup> )	T	8	-0.808801	0.4420
	CO <sub>2</sub>	8	-0.635514	0.5428
	T x CO <sub>2</sub>	8	4.519636	0.0020**
Edible phytoplankton C (µg L <sup>-1</sup> )	T	8	-5.006703	0.0010**
	CO <sub>2</sub>	8	-3.675923	0.0063**
	T x CO <sub>2</sub>	8	0.490532	0.6369
(log) Inedible flagellates >100 µm C (µg L <sup>-1</sup> )	T	8	-3.25951	<b>0.0115*</b>
	CO <sub>2</sub>	8	-5.12617	<b>&lt;0.001**</b>
	T x CO <sub>2</sub>	8	2.35489	<b>0.0463*</b>
(log) Filamentous cyanobacteria	T	8	-1.136689	0.2886
	CO <sub>2</sub>	8	3.320493	<b>0.0105*</b>
	T x CO <sub>2</sub>	8	2.891799	<b>0.0201*</b>
Phytoplankton < 5 µm C (µg L <sup>-1</sup> )	T	8	1.4585787	0.1828
	CO <sub>2</sub>	8	0.2243038	0.8281
	T x CO <sub>2</sub>	8	0.9180968	0.3854
(log) Edible flagellates 5-100 µm C (µg L <sup>-1</sup> )	T	8	-5.194249	0.008**
	CO <sub>2</sub>	8	-4.684095	0.0016*
	T x CO <sub>2</sub>	8	3.302352	0.0108*
Diatom C (µg L <sup>-1</sup> )	T	8	-1.992757	0.0834
	CO <sub>2</sub>	8	-0.016442	0.9873
	T x CO <sub>2</sub>	8	-0.375598	0.7170
<i>T. muelleri</i> C (µg L <sup>-1</sup> )	T	8	-5.004930	<b>&lt;0.001***</b>
	CO <sub>2</sub>	8	-7.271299	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	8	4.206430	<b>&lt;0.001***</b>
<i>T. longissimus</i> C (µg L <sup>-1</sup> )	T	8	-1.920386	0.0911
	CO <sub>2</sub>	8	-2.431088	<b>0.0411*</b>
	T x CO <sub>2</sub>	8	0.745374	0.4774
<i>N. spumigena</i> C (µg L <sup>-1</sup> )	T	8	-1.144287	0.2856
	CO <sub>2</sub>	8	3.28363	<b>0.0111*</b>
	T x CO <sub>2</sub>	8	2.887418	<b>0.0203*</b>

<i>Dolichospermum</i> sp. C ( $\mu\text{g L}^{-1}$ )	T	8	0.6752069	0.5186
	CO <sub>2</sub>	8	1.3080453	0.2272
	T x CO <sub>2</sub>	8	-0.4429917	0.6695
Phytoplankton < 5 $\mu\text{m}$ only chl <i>a</i> C ( $\mu\text{g L}^{-1}$ )	T	8	1.3756529	0.2062
	CO <sub>2</sub>	8	0.2156383	0.8347
	T x CO <sub>2</sub>	8	0.9926941	0.3499
Pico-cyanobacteria C ( $\mu\text{g L}^{-1}$ )	T	8	2.6358914	<b>0.0299*</b>
	CO <sub>2</sub>	8	0.3342436	0.7468
	T x CO <sub>2</sub>	8	-0.5469482	0.5993
(log) <i>P. cordatum</i> C ( $\mu\text{g L}^{-1}$ )	T	8	-3.897752	<b>0.0046**</b>
	CO <sub>2</sub>	8	-5.693473	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	8	1.365857	0.2091
(log) <i>P. micans</i> C ( $\mu\text{g L}^{-1}$ )	T	8	-3.188228	<b>0.0128*</b>
	CO <sub>2</sub>	8	-4.480483	<b>0.0021**</b>
	T x CO <sub>2</sub>	8	0.089412	0.9310
<i>Dinophysis</i> sp.C ( $\mu\text{g L}^{-1}$ )	T	8	-3.307566	<b>0.0107*</b>
	CO <sub>2</sub>	8	-8.436744	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	8	1.424640	0.1921
<i>Teleaulax</i> sp.C ( $\mu\text{g L}^{-1}$ )	T	8	-0.908663	0.3901
	CO <sub>2</sub>	8	3.122997	<b>0.0142*</b>
	T x CO <sub>2</sub>	8	1.122079	0.2944
<i>D. brightwellii</i> C ( $\mu\text{g L}^{-1}$ )	T	8	0.385084	0.7102
	CO <sub>2</sub>	8	0.009844	0.9924
	T x CO <sub>2</sub>	8	-0.387490	0.7085
(log) C:N	T	8	-0.956588	0.3668
	CO <sub>2</sub>	8	-3.127289	<b>0.0141*</b>
	T x CO <sub>2</sub>	8	1.955480	0.0863
C:P	T	8	-0.447313	0.6665
	CO <sub>2</sub>	8	0.020187	0.9844
	T x CO <sub>2</sub>	8	2.586698	<b>0.0323*</b>
N:P	T	8	0.287896	0.7807
	CO <sub>2</sub>	8	2.491033	<b>0.0375*</b>
	T x CO <sub>2</sub>	8	0.827418	0.4320

**Table S3:** Results of generalized least squares model (gls) testing for the effect of temperature (T), CO<sub>2</sub> and the interaction effect of temperature and CO<sub>2</sub> (T x CO<sub>2</sub>) during the second period. Significant results are in bold. \*p<sub>≤</sub>0.05, \*\* p< 0.01, \*\*\* p< 0.001.

Response variable	factor	df residual	t-value	p
Total phytoplankton C ( $\mu\text{g L}^{-1}$ )	T	8	-1.423629	0.1924
	CO <sub>2</sub>	8	1.588208	0.1509
	T x CO <sub>2</sub>	8	1.870230	0.0984
Inedible phytoplankton C ( $\mu\text{g L}^{-1}$ )	T	8	-1.269216	0.2400
	CO <sub>2</sub>	8	1.774299	0.1139
	T x CO <sub>2</sub>	8	1.791950	0.1109
(log) Edible phytoplankton C ( $\mu\text{g L}^{-1}$ )	T	8	-5.006703	<b>0.0010**</b>
	CO <sub>2</sub>	8	-3.675923	<b>0.0063**</b>
	T x CO <sub>2</sub>	8	0.490532	0.6369
(log) Inedible flagellates > 100 $\mu\text{m}$ C ( $\mu\text{g L}^{-1}$ )	T	8	-5.097679	0.009**
	CO <sub>2</sub>	8	-2.672748	0.0282*
	T x CO <sub>2</sub>	8	1.220660	0.2570
(log) Filamentous cyanobacteria C ( $\mu\text{g L}^{-1}$ )	T	8	1.599105	0.1485
	CO <sub>2</sub>	8	6.531437	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	8	0.119481	0.9087
Phytoplankton < 5 $\mu\text{m}$ C ( $\mu\text{g L}^{-1}$ )	T	8	0.052991	0.9590
	CO <sub>2</sub>	8	1.450211	0.1850

	T x CO <sub>2</sub>	8	0.412471	0.6908
(log) Edible flagellates 5-100 µm C (µg L <sup>-1</sup> )	T	8	-6.693784	<b>&lt;0.001***</b>
	CO <sub>2</sub>	8	-6.924401	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	8	1.273975	0.2384
(log) Diatom C (µg L <sup>-1</sup> )	T	8	-3.154914	<b>0.0135*</b>
	CO <sub>2</sub>	8	-1.531894	0.1641
	T x CO <sub>2</sub>	8	-0.244293	0.8132
(log) <i>T. muelleri</i> C (µg L <sup>-1</sup> )	T	8	-4.420674	<b>0.0022**</b>
	CO <sub>2</sub>	8	-1.918598	0.0913
	T x CO <sub>2</sub>	8	0.524755	0.6140
(log) <i>T. longissimus</i> C (µg L <sup>-1</sup> )	T	8	-6.391495	<b>&lt;0.001***</b>
	CO <sub>2</sub>	8	-4.789403	<b>0.0014**</b>
	T x CO <sub>2</sub>	8	3.052888	<b>0.0158*</b>
(log) <i>N. spumigena</i> C (µg L <sup>-1</sup> )	T	8	0.061508	0.9525
	CO <sub>2</sub>	8	5.413742	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	8	1.991594	0.0816
<i>Dolichospermum</i> sp. C (µg L <sup>-1</sup> )	T	8	0.725673	0.4888
	CO <sub>2</sub>	8	0.6850857	0.5126
	T x CO <sub>2</sub>	8	0.6783824	0.5167
Phytoplankton < 5 µm only chl <i>a</i> C (µg L <sup>-1</sup> )	T	8	-0.2342063	0.8207
	CO <sub>2</sub>	8	1.7470336	0.1188
	T x CO <sub>2</sub>	8	0.4161874	0.6882
(log) Pico-cyanobacteria C (µg L <sup>-1</sup> )	T	8	1.200001	0.2645
	CO <sub>2</sub>	8	-0.245088	0.8126
	T x CO <sub>2</sub>	8	0.370596	0.7206
(log) <i>P. cordatum</i> C (µg L <sup>-1</sup> )	T	7	-4.251501	<b>0.0038**</b>
	CO <sub>2</sub>	7	-6.426122	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	7	1.171489	0.2797
(log) <i>P. micans</i> C (µg L <sup>-1</sup> )	T	4	-1.7314318	0.1584
	CO <sub>2</sub>	4	-2.0778204	0.1963
	T x CO <sub>2</sub>	4	0.9579617	0.3923
<i>Dinophysis</i> sp. C (µg L <sup>-1</sup> )	T	8	-8.143823	<b>&lt;0.001***</b>
	CO <sub>2</sub>	8	-9.722616	<b>&lt;0.001***</b>
	T x CO <sub>2</sub>	8	4.513311	<b>0.0020**</b>
(log) <i>Teleaulax</i> sp. C (µg L <sup>-1</sup> )	T	5	-4.854862	<b>0.0047**</b>
	CO <sub>2</sub>	5	1.182049	0.2903
	T x CO <sub>2</sub>	5	0.111846	0.9153
(log) <i>D. brightwellii</i> C (µg L <sup>-1</sup> )	T	8	-2.3473104	<b>0.0469*</b>
	CO <sub>2</sub>	8	-1.1657632	0.2773
	T x CO <sub>2</sub>	8	-0.0719142	0.9444
C:N	T	8	-3.84145	<b>0.0049**</b>
	CO <sub>2</sub>	8	-4.58708	<b>0.0018**</b>
	T x CO <sub>2</sub>	8	4.47006	<b>0.0021**</b>
C:P	T	8	-1.058106	0.3209
	CO <sub>2</sub>	8	0.388403	0.7078
	T x CO <sub>2</sub>	8	0.820492	0.4357
N:P	T	8	-0.510356	0.6236
	CO <sub>2</sub>	8	1.394792	0.2006
	T x CO <sub>2</sub>	8	0.056534	0.9563

**Table S4:** Results of generalized least squares model (glS) testing for the effect of CO<sub>2</sub> under high and low temperature for the edible and inedible species separately. Significant results are in bold. \*p≤ 0.05, \*\* p< 0.01, \*\*\* p< 0.001.

<b>Response variable</b>	<b>factor</b>	<b>df residual</b>	<b>t-value</b>	<b>p</b>
<i>T. muelleri</i> C first period (µg L <sup>-1</sup> )	CO <sub>2</sub> warm	4	-1.496190	0.2089
	CO <sub>2</sub> cold	4	-6.5866618	<b>0.0028**</b>
<i>T. longissimus</i> C second period (µg L <sup>-1</sup> )	CO <sub>2</sub> warm	4	0.0881402	0.9340
	CO <sub>2</sub> cold	4	-4.863399	<b>0.0083**</b>
<i>N. spumigena</i> C bloom (µg L <sup>-1</sup> )	CO <sub>2</sub> warm	4	6.141194	<b>0.0036**</b>
	CO <sub>2</sub> cold	4	4.38497	<b>0.0118*</b>
<i>P. micans</i> C second period (µg L <sup>-1</sup> )	CO <sub>2</sub> warm	4	0.6741999	0.5371
	CO <sub>2</sub> cold	4	-0.6298045	0.5630
<i>P. cordatum</i> C second period (µg L <sup>-1</sup> )	CO <sub>2</sub> warm	4	-0.3194113	0.7654
	CO <sub>2</sub> cold	4	-0.1399214	0.8955
<i>Dinophysis</i> sp. C second period (µg L <sup>-1</sup> )	CO <sub>2</sub> warm	4	-4.426824	<b>0.0115*</b>
	CO <sub>2</sub> cold	4	-8.128184	<b>0.0012**</b>