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Supplement of

Ocean acidification reduces growth and grazing impact of Antarctic heterotrophic nanoflagellates

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Table S1. Initial conditions of seawater sampled from Prydz Bay, Antarctica

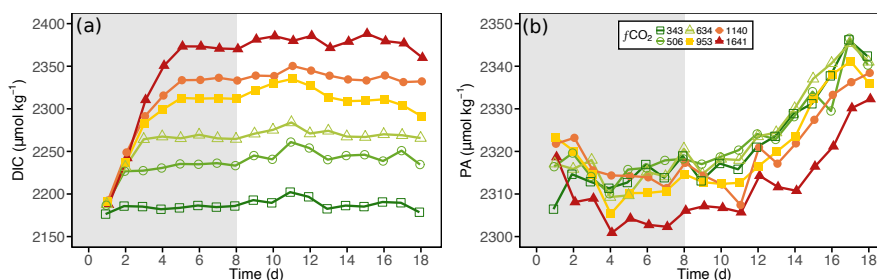
Condition	Value
$f\text{CO}_2$, μatm	356 ± 6
pH_T	8.08
DIC, $\mu\text{mol kg}^{-1}$	2187 ± 6
PA, $\mu\text{mol kg}^{-1}$	2317 ± 6
Temperature, $^\circ\text{C}$	-1.03 ± 0.17
Salinity, PSU	34.3
NO _x , μM	26.19 ± 0.74
SRP, μM	1.74 ± 0.02
Silicate, μM	60.75 ± 0.91

Data are mean \pm one standard deviation of all six minicosm measurements

Table S2. Flow cytometry flow rates and equations for counts

Instrument	Flow	Flow Rate (ml min^{-1})	Analysed Volume Equation	R^2
FACScan	Low	7.5	$y = 0.0125x - 0.0127$	0.997
FACScan	High	36.5	$y = 0.0406x - 0.0098$	0.999
FACSCalibur	Low	15.6	$y = 0.0184x - 0.0074$	0.999
FACSCalibur	High	67.2	$y = 0.0710x - 0.0094$	1.00

Standard deviation of all flow rates was <0.004

**Figure S1.** The (a) dissolved inorganic carbon (DIC), and (b) practical alkalinity (PA) carbonate chemistry conditions in each of the minicosm treatments over time. Grey shading indicates CO₂ and light acclimation period.

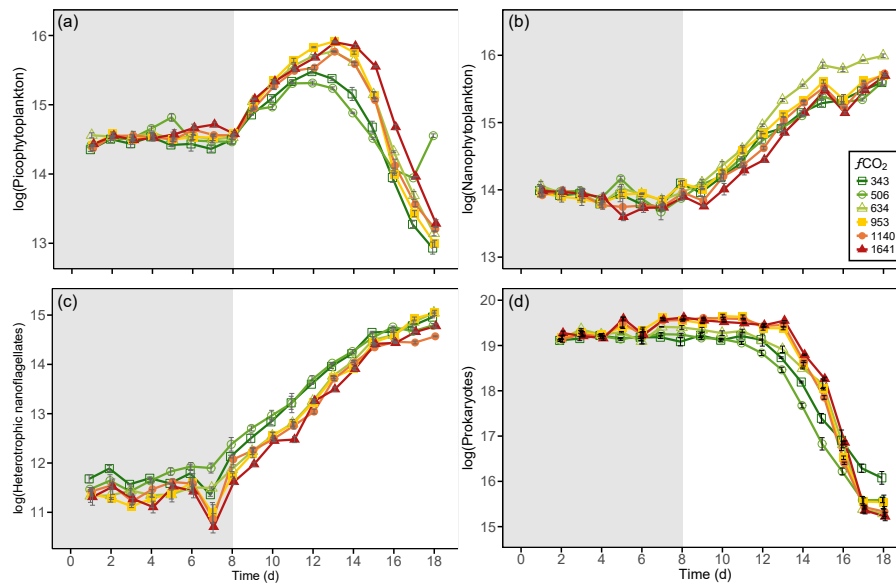


Figure S2. Log-transformed abundance of (a) picophytoplankton, (b) nanophytoplankton, (c) heterotrophic nanoflagellates, and (d) prokaryotes in each of the minicosm treatments over time. Error bars display standard error of pseudoreplicate samples. Grey shading indicates CO₂ and light acclimation period.

Table S3. ANOVA table for trends in $f\text{CO}_2$ treatment over time for picophytoplankton growth rates

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Day	1	12.32	12.32	1144	<0.01
$f\text{CO}_2$	5	0.954	0.191	17.70	<0.01
Day: $f\text{CO}_2$	5	0.207	0.042	3.849	<0.01
Residuals	78	0.840	0.011		

Bold text denotes significant p-values (<0.05).

Table S4. ANOVA table for trends in $f\text{CO}_2$ treatment over time for nanophytoplankton growth rates

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Day	1	35.10	35.10	5684	<0.01
$f\text{CO}_2$	5	2.002	0.401	64.92	<0.01
Day: $f\text{CO}_2$	5	0.429	0.086	13.89	<0.01
Residuals	114	0.704	0.006		

Bold text denotes significant p-values (<0.05).

Table S5. ANOVA table for trends in $f\text{CO}_2$ treatment over time for heterotrophic nanoflagellate growth rates

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Day	1	96.24	96.24	5405	<0.01
$f\text{CO}_2$	5	4.844	0.969	54.42	<0.01
Day: $f\text{CO}_2$	5	0.480	0.096	5.397	<0.01
Residuals	131	2.332	0.018		

Bold text denotes significant p-values (<0.05).

Table S6. ANOVA table for trends in $f\text{CO}_2$ treatment over time for heterotrophic nanoflagellate growth rates

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Day	1	0.417	0.417	24.02	<0.01
$f\text{CO}_2$	5	1.052	0.210	12.14	<0.01
Day: $f\text{CO}_2$	5	0.312	0.062	3.593	<0.01
Residuals	77	1.335	0.017		

Bold text denotes significant p-values (<0.05).