# Garzke et al code

#### 1. Figure 2, Table 2

#### 1.1 Phytoplankton abundance

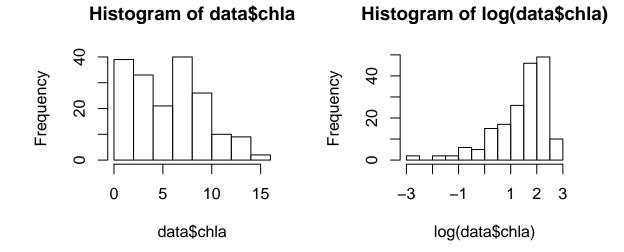
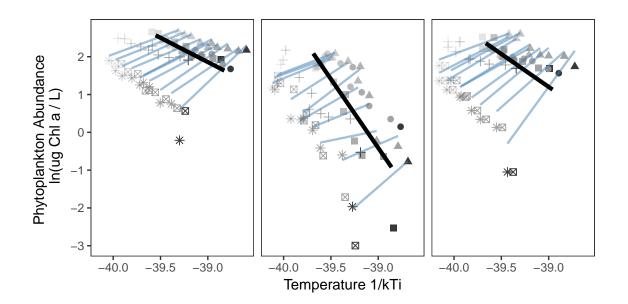


Table 1: Table 1.1: Model selection results for Phytoplankton biomass, with  $1|\mathrm{Tank}$  as a random effect. Model terms are: intercept (Int), trophic treatment (TL), Temperature - weekly average (Tw), temperature - expt average (Tt), interaction terms and statistical estimates

	Int	TL	Tw	Tt	Tw*Tt	Tw*TL	Tt*TL	df	logLik	AICc	d	W
$\overline{\mathrm{modPB7}}$	2.27	+	-1.47	1.28	NA	NA	+	9	-120.08	259.22	0.00	7.331665e-01
modPB8	2.25	+	-1.37	1.28	NA	+	+	11	-118.83	261.24	2.02	2.668334e-01
modPBF	2.35	+	-1.22	2.15	1.51	+	NA	10	-134.62	290.55	31.33	1.152411e-07
modPB4	1.63	NA	-1.47	1.65	1.29	NA	NA	6	-162.55	337.59	78.37	7.023629e-18
modPB5	2.13	+	-1.47	NA	NA	NA	NA	6	-163.22	338.93	79.71	3.599893e-18
modPB6	2.11	+	-1.37	NA	NA	+	NA	8	-162.07	340.98	81.77	1.287549e-18
modPB3	1.63	NA	-1.46	1.85	NA	NA	NA	5	-165.43	341.21	82.00	1.148295e-18
modPB2	1.63	NA	-1.47	NA	NA	NA	NA	4	-171.08	350.39	91.18	1.166052e-20
modPB1	1.88	+	NA	NA	NA	NA	NA	5	-205.52	421.39	162.18	4.458665e-36
modPB0	1.39	NA	NA	NA	NA	NA	NA	3	-212.99	432.11	172.89	2.102002e- $38$

Figure 2ABC: Phytoplankton biomass and how it varied with temperature within tanks (blue lines) and across tanks (black lines).



#### 1.2 Net ecosystem oxygen production

## Histogram of data1\$NPP2

# Histogram of log(data1\$NPP2

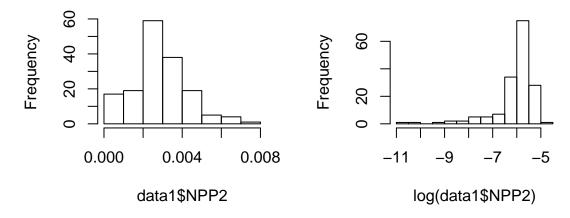


Table 2: Table 1.1: Model selection results for Net Ecosystem Oxygen Production, with 1|Tank as a random effect. Model terms are: intercept (Int), trophic treatment (TL), Temperature - weekly average (Tw), temperature - expt average (Tt), interaction terms and statistical estimates

	Int	$\operatorname{TL}$	Tw	$\operatorname{Tt}$	Tw*Tt	Tw*TL	$\mathrm{Tt}^{*}\mathrm{TL}$	df	logLik	AICc	d	w
modNPP8	-6.32	+	0.09	-1.30	NA	+	+	11	-191.90	407.56	0.00	0.379804423
modNPP3	-6.00	NA	-0.38	-0.64	NA	NA	NA	5	-199.14	408.67	1.11	0.218252095
modNPPF	-6.31	+	0.06	-1.24	-0.37	+	+	12	-191.82	409.74	2.18	0.127837762

	Int	$\operatorname{TL}$	Tw	$\operatorname{Tt}$	$\mathrm{Tw}^*\mathrm{Tt}$	Tw*TL	$\mathrm{Tt}^*\mathrm{TL}$	df	logLik	AICc	d	W
modNPP7	-6.23	+	-0.39	-1.28	NA	NA	+	9	-195.48	410.15	2.59	0.103989814
modNPP4	-6.00	NA	-0.37	-0.57	-0.47	NA	NA	6	-199.02	410.57	3.01	0.084145720
modNPP2	-6.00	NA	-0.38	NA	NA	NA	NA	4	-202.37	412.99	5.43	0.025199207
modNPP0	-6.06	NA	NA	NA	NA	NA	NA	3	-203.58	413.32	5.76	0.021340413
modNPP6	-6.17	+	0.04	NA	NA	+	NA	8	-198.22	413.38	5.82	0.020740957
modNPP5	-6.09	+	-0.40	NA	NA	NA	NA	6	-201.09	414.73	7.17	0.010556933
modNPP1	-6.16	+	NA	NA	NA	NA	NA	5	-202.43	415.25	7.69	0.008132677

Table 3: Table 1.2: Confidence intervals for averaged models for NPP  $\,$ 

2.5~%	97.5 %
-6.6018031	-6.0341170
0.0204002	0.8048887
0.0399869	0.8637557
-0.6899418	0.8624403
-2.2961709	-0.2785884
-2.6531750	-0.2849762
-1.3044611	0.9008073
-0.8273011	1.7762975
-0.5432110	2.2415518
-2.6531750	-0.2849762
-1.3044611	0.9008073
-2.3031652	1.5563285
	-6.6018031 0.0204002 0.0399869 -0.6899418 -2.2961709 -2.6531750 -1.3044611 -0.8273011 -0.5432110 -2.6531750 -1.3044611

### NPP Coefficients for Figure 2

### FIGURE 2D-F: NPP

