



Fig. S1. Experimental setup for CT_{MAX} measurements.

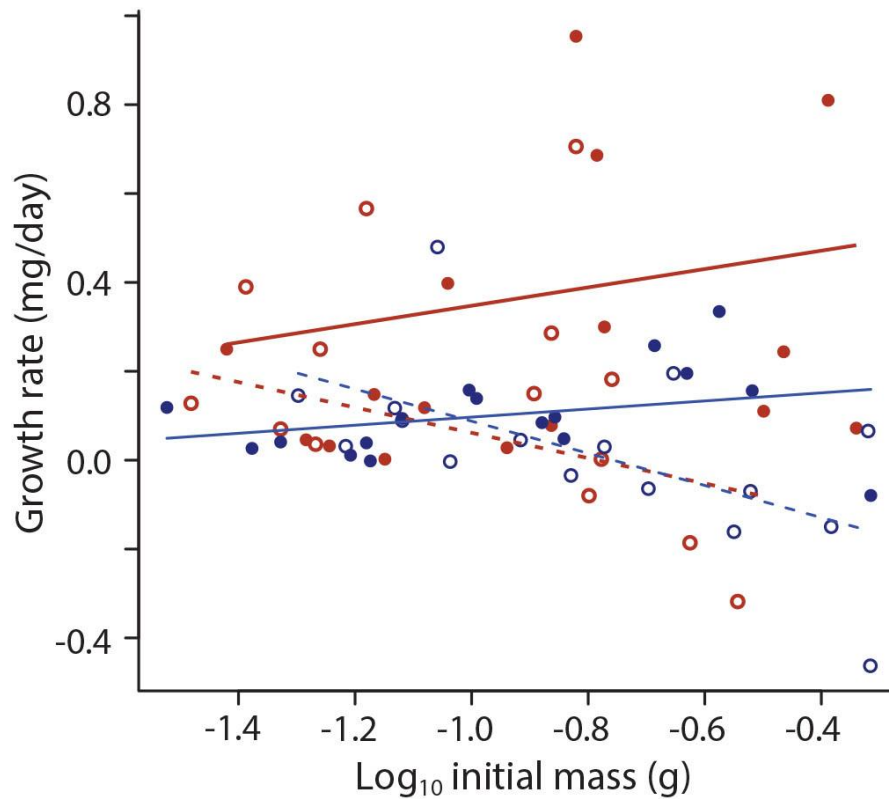


Fig. S2. Growth rate of *P. californica* over the duration of the temperature-oxygen experiment (64 days for cool treatment; 50 days for warm) by treatment type (red circles = 16 °C, blue circles = 9 °C, closed circles = normoxia, open circles = hypoxia) for only the subset of individuals less than 0.5 g (below the cutoff at which they may become dormant). Solid and dashed lines are fitted to normoxic and hypoxic treatments, respectively.

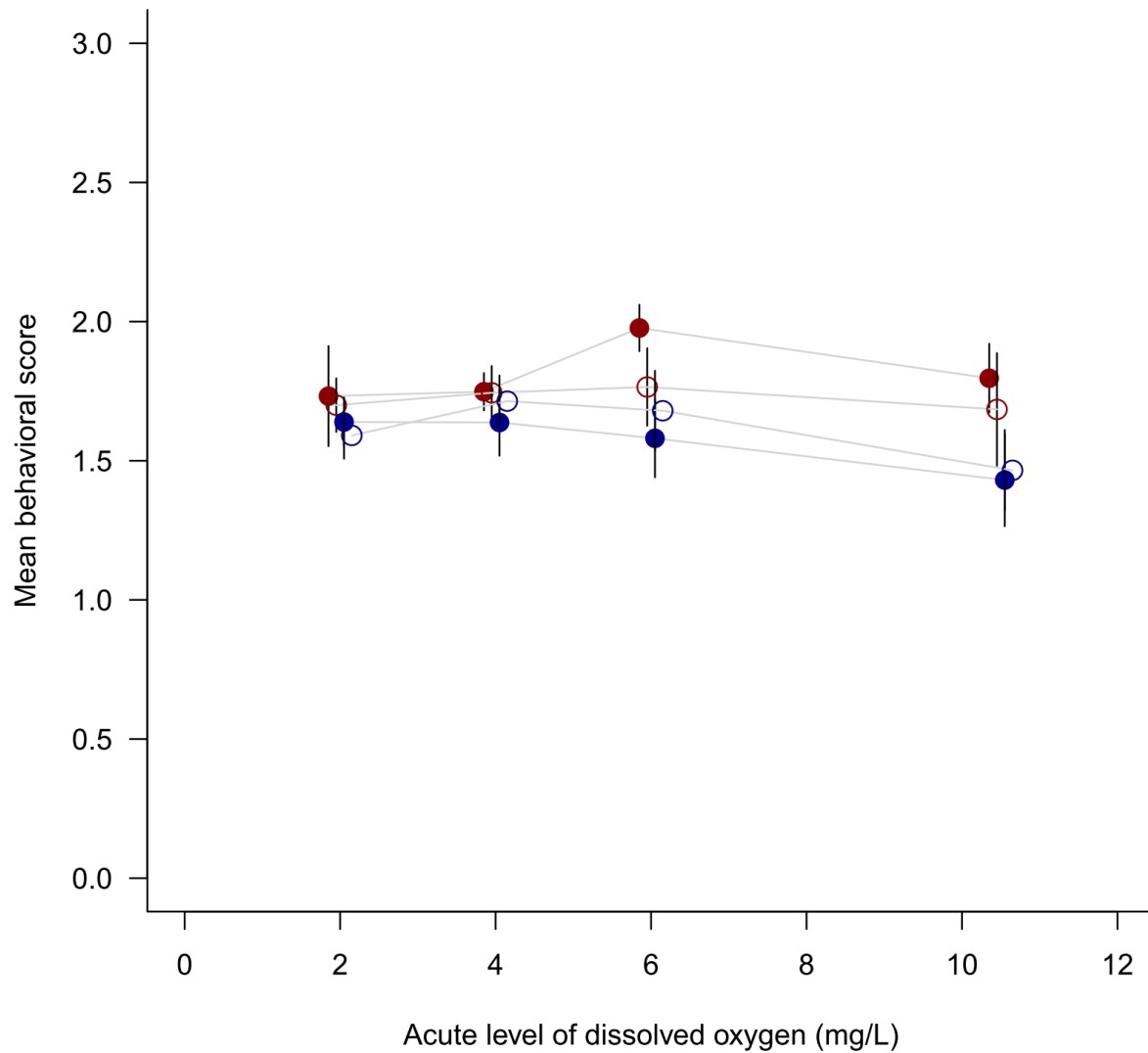


Fig. S3. Mean behavioral score (\pm standard error) by experimental DO level within each treatment group. Solid symbols denote normoxia and unfilled hypoxia; red denotes warmer temperatures and blue cool.

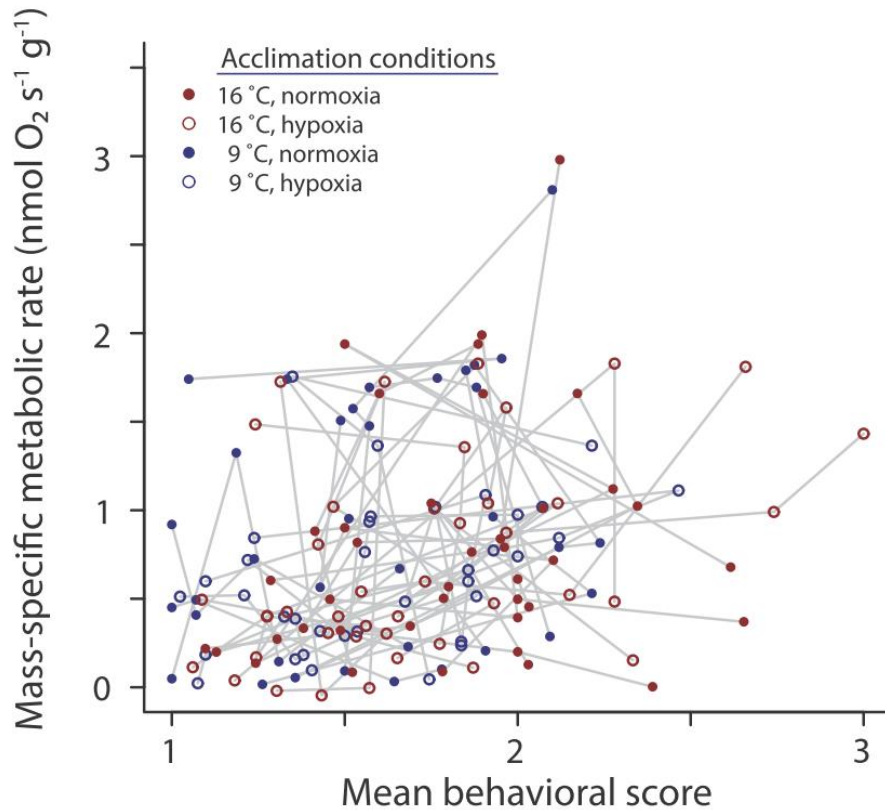


Fig. S4. Mass-specific metabolic rate as a function of mean behavioral score. Behaviors of each individual are shown at the four levels of experimental DO to which they were exposed (data for each individual connected by lines). Metabolic rate was significantly and positively associated with mean behavioral score ($F_{1, 109} = 15.48$, $P = 0.0001$) as assessed by a linear mixed-effects model that used individual ID as a random effect and acclimation levels of oxygen and temperature as well as acute experimental DO as predictors.

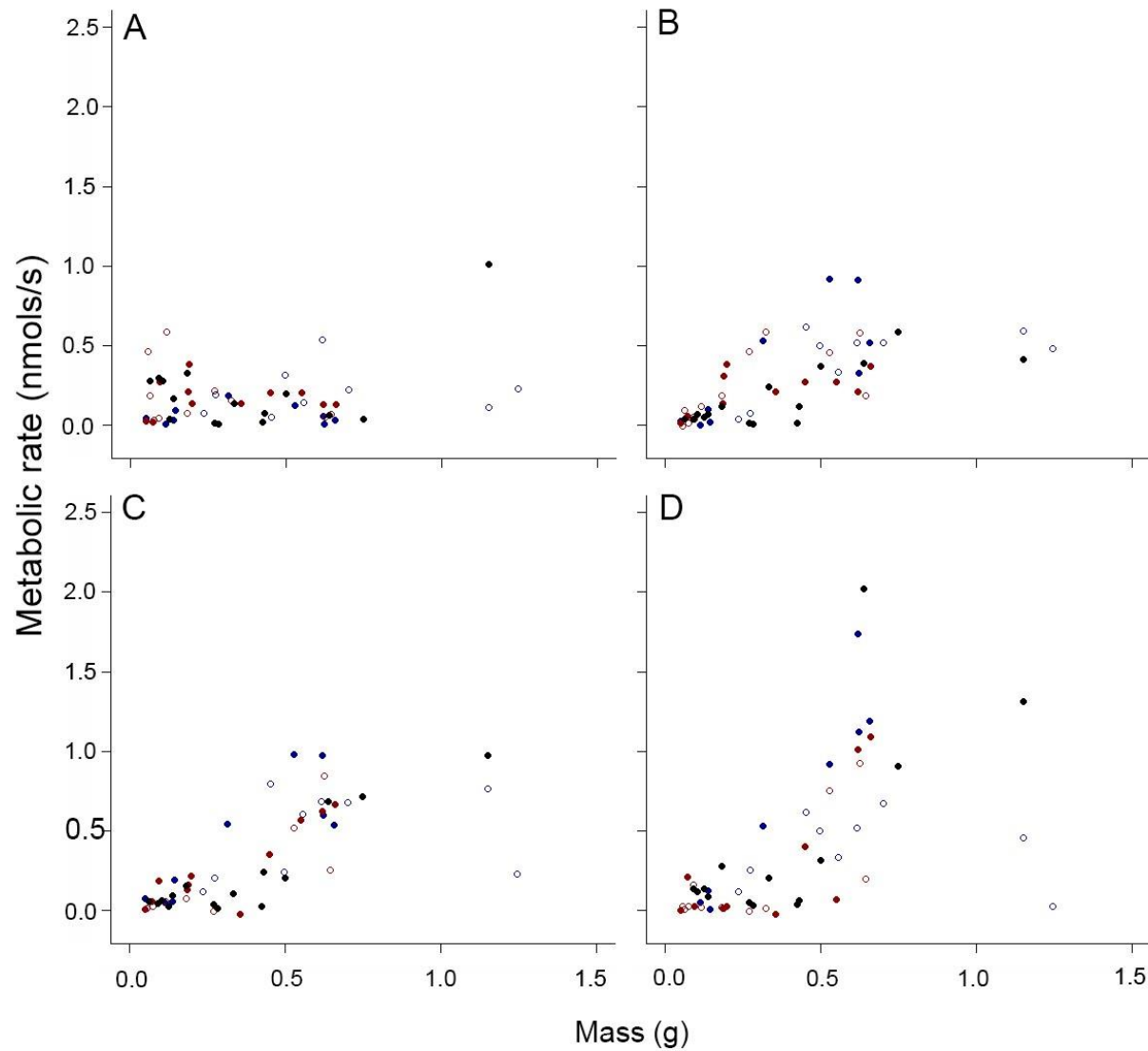


Fig. S5. Plots of mass and metabolic rate for each experimental oxygen level A) 2 mg L⁻¹, B) 4 mg L⁻¹, C) 6 mg L⁻¹, D) ~12 mg L⁻¹.

Table S1. ANOVA summary of linear mixed-effects model of growth rate as functions of body mass and treatment levels of temperature and oxygen for only the subset of individuals less than 0.5 g (below the cutoff at which they may become dormant).

	numDF	denDF	F	P
Intercept	1	30	30.35	<0.0001
Log ₁₀ body mass	1	25	1.07	0.311
Oxygen	1	25	15.01	0.0007
Temperature	1	30	10.17	0.003
Log ₁₀ body mass x Oxygen	1	25	7.61	0.011
Log ₁₀ body mass x Temperature	1	25	0.32	0.578
Oxygen x Temperature	1	25	7.87	0.010
Log ₁₀ body mass x Oxygen x Temperature	1	25	0.02	0.901