Supplementary information for manuscript:

Cold induces acute stress but heat is ultimately more deleterious for the reef-building coral *Acropora yongei*

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Supplementary Table S1. Summary of two-way ANOVA statistics to test the effects of temperature treatment and time during the 20 d experiment on *Acropora yongei*. The R^2 value indicates the percentage of variance that is accounted for by each predictor variable, as well as the interaction term. R^2 were calculated by dividing the sum of squares of the factor of consideration by the total of all sum of squares and the residuals; therefore nested ANOVA R^2 values included the nested factor.

Parameter	Treatment			Time			Treatment x Time		
	F statistic	*P*	R^2	F statistic	*P*	R^2	F statistic	*P*	R^2
Coral growth[a]	$F_{2,58}$=154.0	<0.0001	0.63	$F_{3,58}$=6.0	<0.01	0.04	$F_{6,58}$=3.3	<0.01	0.04
Dinoflagellate density	$F_{2,35}$=419.8	<0.0001	0.40	$F_{2,35}$=243.0	<0.0001	0.22	$F_{3,35}$=191.5	<0.0001	0.36
Chl *a*	$F_{2,24}$=0.6	0.57		$F_{1,24}$=1.0	0.32		$F_{2,24}$=1.7	0.2	
Carotene : chl *a*	$F_{2,24}$=7.2	<0.01	0.25	$F_{1,24}$=4.6	<0.05	0.08	$F_{2,24}$=6.8	<0.01	0.24
Dt / (Dd + Dt)	$F_{2,24}$=40.7	<0.0001	0.34	$F_{1,24}$=65.6	<0.0001	0.27	$F_{2,24}$=35.7	<0.0001	0.29
Dd + Dt : chl *a*	$F_{2,24}$=22.2	<0.0001	0.32	$F_{1,24}$=34.2	<0.0001	0.25	$F_{2,24}$=18.2	<0.0001	0.26
Effective quantum yield[a]	$F_{2,90}$=232.5	<0.0001	0.30	$F_{3,90}$=137.2	<0.0001	0.26	$F_{6,90}$=88.9	<0.0001	0.34
Maximum quantum yield[a]	$F_{2,92}$=192.8	<0.0001	0.33	$F_{3,92}$=88.9	<0.0001	0.23	$F_{6,92}$=63.4	<0.0001	0.32
Pressure over PSII[a]	$F2,87$=77.3	<0.0001	0.24	$F3,87$=47.5	<0.0001	0.22	$F6,87$=33.9	<0.0001	0.32

[a] two-way nested ANOVA

Supplementary Table S2. Summary of t-tests to test the differences between cold treatment and control corals of *Acropora yongei* on 20 d.

Parameter	t	P
Chl a	t_5=0.12	0.91
Carotene : chl a	t_8=-1.6	0.14
Dt / (Dd + Dt)	t_8=-4.1	<0.01
Dd + Dt : chl a	t_8=-19.1	<0.0001
Effective quantum yield	t_7=12.7	<0.0001
Maximum quantum yield	t_6=9.4	<0.0001
Pressure over PSII	t_8=-8.9	<0.0001