

Appendix S2

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Title: In hot water? Assessing the link between fundamental thermal physiology and predation of juvenile Chinook salmon

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Table S1. Summary of mean aerobic scope, RMR, and MMR values (mgO₂/kg/min) by species/population of fish examined across temperatures.

Species/Population		11°C	14°C	18°C	22°C	25°C
Largemouth bass	AS	1.90	2.55	3.44	3.48	3.84
	RMR	1.10	1.29	1.47	2.11	2.40
	MMR	3.00	3.84	4.91	5.59	6.23
Late fall-run Chinook salmon	AS	8.79	8.80	9.13	11.4	8.57
	RMR	1.80	2.55	3.54	4.17	6.00
	MMR	10.6	11.3	12.7	15.6	14.6
Rainbow trout	AS	8.26	10.4	10.8	11.3	8.62
	RMR	2.63	2.94	3.09	1.53	4.37
	MMR	10.7	13.4	13.2	12.8	13.0
Fall-run Chinook salmon	AS	5.77	6.43	6.82	8.88	8.03
	RMR	2.82	3.50	4.26	7.49	4.69
	MMR	8.59	9.93	11.1	16.4	12.7

Table S2. Model outputs for the linear model used to analyze aerobic scope for late fall-run Chinook salmon. Significant *p*-values are denoted in bold.

Late fall-run Chinook salmon: Aerobic scope			
Predictors	Estimates	std. Error	<i>p</i>
(Intercept)	12.73	2.30	<0.001
Temperature [1st degree]	1.97	2.29	0.396
Temperature [2nd degree]	-2.79	2.29	0.230
Mass	-1.83	1.23	0.145

Table S3. Model outputs for the linear model used to analyze aerobic scope for fall-run Chinook salmon. Significant *p*-values are denoted in bold.

Fall-run Chinook salmon: Aerobic scope			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	9.09	1.47	<0.001
Temperature [1st degree]	8.94	4.29	0.045
Temperature [2nd degree]	0.05	4.03	0.991
Mass	-0.58	0.43	0.184

Table S4. Model outputs for the linear model used to analyze aerobic scope for largemouth bass. Significant *p*-values are denoted in bold.

Largemouth bass: Aerobic scope			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	3.53	0.54	<0.001
Temperature [1st degree]	4.22	0.55	<0.001
Temperature [2nd degree]	-1.15	0.55	0.043
Mass	-0.00	0.00	0.350

Table S5. Model outputs for the linear model used to analyze aerobic scope for rainbow trout. Significant *p*-values are denoted in bold.

Rainbow trout: Aerobic scope			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	15.76	1.74	<0.001
Temperature [1st degree]	0.82	1.53	0.599
Temperature [2nd degree]	-5.75	1.54	0.001
Mass	-0.04	0.01	0.003

Table S6. Model outputs for the GLM used to analyze burst number (top) and the linear model for burst speed (bottom) for late fall-run Chinook salmon. Significant *p*-values are denoted in bold.

Late fall-run Chinook salmon: Burst number			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	2.70	0.21	<0.001
Temperature	-0.03	0.01	<0.001
Mass	0.01	0.09	0.870

Late fall-run Chinook salmon: Burst speed			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	29.05	13.60	0.035
Temperature	2.56	0.44	<0.001
Mass	0.39	5.67	0.945

Table S7. Model outputs for the GLM used to analyze burst number (top) and the linear model for burst speed (bottom) for fall-run Chinook salmon. Significant *p*-values are denoted in bold.

Fall-run Chinook salmon: Burst number			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	15.41	5.32	0.005
Temperature	-0.08	0.20	0.678
Mass	0.62	1.33	0.644

Fall-run Chinook salmon: Burst speed			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	74.73	17.97	<0.001
Temperature	-0.15	0.68	0.830
Mass	3.05	4.48	0.499

Table S8. Model outputs for the GLM used to analyze burst number (top) and the linear model for burst speed (bottom) for rainbow trout. Significant p-values are denoted in bold.

Rainbow trout: Burst number			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	2.76	0.31	<0.001
Temperature	0.01	0.01	0.119
Mass	1.00	0.00	0.746

Rainbow trout: Burst speed			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	214.95	70.26	0.006
Temperature	-2.86	2.09	0.187
Mass	0.32	0.39	0.420

Table S9. Model outputs for the GLM used to analyze burst number (top) and the linear model for burst speed (bottom) for largemouth bass. Significant p-values are denoted in bold.

Largemouth bass: Burst number			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	1.49	0.32	<0.001
Temperature	0.05	0.01	0.001
Mass	0.00	0.00	0.077

Largemouth bass: Burst speed			
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	26.49	13.80	0.063
Temperature	1.04	0.36	0.006
Mass	0.00	0.05	0.958

Table S10. Model outputs for the GLM used to analyze the outcome of predation trials (i.e. number of salmon consumed) with largemouth bass [LMB] and late fall-run Chinook salmon. Significant *p*-values are denoted in bold.

Predation Trials, 2020: Number of salmon eaten by largemouth bass			
Predictors	Estimates	std. Error	<i>p</i>
(Intercept)	0.21	0.90	0.083
Temperature	1.12	0.04	0.015
LMB mass	1.24	0.23	0.362
Average salmon mass	1.19	0.25	0.492

Table S11. Model outputs for the GLM used to analyze the outcome of predation trials (i.e. number of salmon consumed) with striped bass [SB] and fall-run Chinook salmon. Significant *p*-values are denoted in bold.

Predation Trials, 2021: Number of salmon eaten by striped bass			
Predictors	Estimates	std. Error	<i>p</i>
(Intercept)	-0.24	0.65	0.710
Temperature	0.06	0.03	0.086
SB mass	-0.14	0.18	0.444
Average salmon mass	-0.46	0.20	0.018

Table S12. Model outputs for the GLM used to analyze the outcome of predation trials (i.e. number of salmon consumed) with rainbow trout [RT] and fall-run Chinook salmon. Significant *p*-values are denoted in bold.

Predation Trials, 2021: Number of salmon eaten by rainbow trout			
Predictors	Incidence Rate Ratios	std. Error	<i>p</i>
(Intercept)	0.03	2.12	0.988
Temperature	-0.11	0.12	0.345
Average salmon mass	-1.99	1.12	0.075
RT mass	-0.33	0.59	0.571

Table S13. Outputs for the three GLMs to determine the effect of relative performance difference between predator prey on the number of salmon consumed per individual largemouth bass. Performance values examined were aerobic scope (top), burst number (middle), and burst speed (bottom) Significant p-values are denoted in bold.

Predation Trials, 2020: Number salmon eaten			
<i>Predictors</i>	<i>Log-Mean</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	3.11	1.93	0.108
Relative difference in aerobic scope	3.80	2.90	0.190
<i>Predictors</i>	<i>Estimates</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	-2.10	1.08	0.051
Relative difference in burst number	-4.60	1.78	0.010
<i>Predictors</i>	<i>Log-Mean</i>	<i>std. Error</i>	<i>p</i>
(Intercept)	0.67	0.24	0.006
Relative difference in burst speed	0.35	0.29	0.227