

Table S1. Two-way ANOVA results for gene expression following acute heat shock and recovery.

	Variables	<i>df</i>	<i>F</i>	<i>P</i>
<i>HSP90</i>	Species	1	15.64	0.0011*
	Time	3	44.61	<.0001*
	Species X Time	3	1.11	0.3739
	Error	16		
<i>HSP70-1</i>	Species	1	9.50	0.0071*
	Time	3	18.72	<.0001*
	Species X Time	3	2.33	0.1131
	Error	16		
<i>HSP70-2</i>	Species	1	1.41	0.2532
	Time	3	11.93	0.0002*
	Species X Time	3	1.91	0.1690
	Error	16		

2-way ANOVA Analysis of Variance

* Significant at $P < 0.05$

Table S2. Two-way ANOVA results for physiological and biochemical parameters tested during chronic warming challenge.

Factor	Variables	<i>df</i>	<i>F</i>	<i>P</i>
Condition	Species	1	3.89	0.0520
	Time	7	9.49	<.0001*
	Species X	7	2.84	0.0107*
	Error	80		
TGR	Species	1	0.45	0.5046
	Time	7	17.08	<.0001*
	Species X	7	12.00	<.0001*
	Error	80		
SGR	Species	1	0.00	0.9848
	Time	7	3.07	0.0064*
	Species X	7	5.12	<.0001*
	Error	80		
Glycogen	Species	1	8.67	0.0042*
	Time	7	1.36	0.2338
	Species X	7	3.38	0.0033*
	Error	80		
Triglyceride	Species	1	4.62	0.0345*
	Time	7	9.50	<.0001*
	Species X	7	5.04	<.0001*
	Error	80		

2-way ANOVA Analysis of Variance

* Significant at $P < 0.05$

Table S3. Two-way ANOVA results for all genes tested during chronic warming challenge.

Factor	Variables	<i>df</i>	<i>F</i>	<i>P</i>
<i>HSP90</i>	Species	1	15.00	0.0002*
	Time	7	28.71	<.0001*
	Species X Time	7	42.64	<.0001*
	Error	80		
<i>HSP70</i>	Species	1	30.65	<.0001*
	Time	7	18.83	<.0001*
	Species X Time	7	8.71	<.0001*
	Error	80		
<i>HSP60</i>	Species	1	3.17	0.0787
	Time	7	22.76	<.0001*
	Species X Time	7	18.00	<.0001*
	Error	80		
<i>PFK</i>	Species	1	0.66	0.4207
	Time	7	12.65	<.0001*
	Species X Time	7	3.27	0.0042*
	Error	80		

2-way ANOVA Analysis of Variance

* Significant at $P < 0.05$

Table S4. Mixed model ANCOVA LSMEANS results for the overall data from the chronic field pond temperature challenge.

Factor	Comparison	Estimate	Std. Error	df	t-value	Adjusted P
Condition	VL-VN Ambient	0.5542	0.4914	48.7	1.1300	0.6743
	VL-VN Warmed	-0.5850	0.4914	48.7	-1.1900	0.6358
	VL Ambient-Warmed	0.2109	0.4973	32.9	0.4200	0.9741
	VN Ambient-Warmed	-0.9283	0.4973	32.9	-1.8700	0.2558
TGR	VL-VN Ambient	0.0031	0.0010	20.0	3.1300	0.0249*
	VL-VN Warmed	0.0020	0.0010	20.0	2.0700	0.1965
	VL Ambient-Warmed	0.0007	0.0010	20.0	0.7500	0.8740
	VN Ambient-Warmed	-0.0003	0.0010	20.0	-0.3100	0.9897
SGR	VL-VN Ambient	0.0035	0.0007	48.9	5.1300	<0.0001*
	VL-VN Warmed	0.0031	0.0007	48.9	4.5200	0.0002*
	VL Ambient-Warmed	0.0013	0.0009	18.8	1.4200	0.4943
	VN Ambient-Warmed	0.0009	0.0009	18.8	0.9600	0.7712
Glycogen	VL-VN Ambient	-0.0022	0.0045	20.0	-0.5000	0.9592
	VL-VN Warmed	0.0099	0.0045	20.0	2.1900	0.1607
	VL Ambient-Warmed	-0.0112	0.0045	20.0	-2.4800	0.0949*
	VN Ambient-Warmed	0.0009	0.0045	20.0	0.2100	0.9967
log(Triglycerides)	VL-VN Ambient	0.7625	0.1754	20.0	4.3500	0.0016*
	VL-VN Warmed	0.4179	0.1754	20.0	2.3800	0.1131
	VL Ambient-Warmed	0.0687	0.1754	20.0	4.3500	0.0016*
	VN Ambient-Warmed	-0.2759	0.1754	20.0	-1.5700	0.4157
log(<i>hsp90</i>)	VL-VN Ambient	0.9703	0.0783	55.3	12.3900	<0.0001*
	VL-VN Warmed	1.3242	0.0783	55.3	16.9100	<0.0001*
	VL Ambient-Warmed	-0.0456	0.0783	55.3	-0.5800	0.9368
	VN Ambient-Warmed	0.3083	0.0783	55.3	3.9400	0.0013*
log(<i>hsp70</i>)	VL-VN Ambient	0.1472	0.1695	62.2	0.8700	0.8210
	VL-VN Warmed	1.3856	0.1695	62.2	8.1700	<0.0001*
	VL Ambient-Warmed	-0.4115	0.1695	62.2	-2.4300	0.0823*
	VN Ambient-Warmed	0.8269	0.1695	62.2	4.8800	<0.0001*
log(<i>hsp60</i>)	VL-VN Ambient	0.6755	0.7870	54.8	8.5800	<0.0001*
	VL-VN Warmed	-0.0808	0.7870	54.8	-1.0300	0.7345
	VL Ambient-Warmed	0.2410	0.7870	54.8	3.0600	0.0174*
	VN Ambient-Warmed	-0.5153	0.7870	54.8	-6.5500	<0.0001*
log(<i>pfk</i>)	VL-VN Ambient	0.4417	0.1215	63.4	3.6400	0.0030*
	VL-VN Warmed	0.4550	0.1215	63.4	3.7500	0.0022*
	VL Ambient-Warmed	0.1465	0.1215	63.4	1.2100	0.6250
	VN Ambient-Warmed	0.1599	0.1215	63.4	1.3200	0.5563

Mixed Model Analysis of Covariance – Overall LSMEANS

* Significant at $P < 0.1$

Table S5. Mixed model ANCOVA LSMEANS results for the heat shocked data from the chronic field pond temperature challenge.

Factor	Comparison	Estimate	Std. Error	df	t-value	Adjusted P
Condition	VL-VN Ambient	1.2347	0.5538	27.3	2.2300	0.1406
	VL-VN Warmed	-0.1092	0.5538	27.3	-0.2000	0.9972
	VL Ambient-Warmed	-0.2691	0.5848	25.5	-0.4600	0.9670
	VN Ambient-Warmed	-1.6131	0.5848	25.5	-2.7600	0.0475*
TGR	VL-VN Ambient	0.0056	0.0013	10.0	4.3000	0.0072*
	VL-VN Warmed	0.0033	0.0013	10.0	2.5400	0.1126
	VL Ambient-Warmed	0.0003	0.0014	19.6	0.2500	0.9940
	VN Ambient-Warmed	-0.0019	0.0014	19.6	-1.3800	0.5402
SGR	VL-VN Ambient	0.0058	0.0010	10.1	5.3500	0.0015*
	VL-VN Warmed	0.0041	0.0010	10.1	3.7800	0.0157*
	VL Ambient-Warmed	0.0017	0.0013	18.0	1.3000	0.5815
	VN Ambient-Warmed	0.0000	0.0013	18.0	0.0300	1.0000
Glycogen	VL-VN Ambient	-0.0081	0.0049	10.0	-1.6500	0.3981
	VL-VN Warmed	0.0118	0.0049	10.0	2.3900	0.1425
	VL Ambient-Warmed	-0.0179	0.0054	19.4	-3.2800	0.0352*
	VN Ambient-Warmed	0.0019	0.0054	19.4	0.3600	0.9828
log(Triglycerides)	VL-VN Ambient	0.8949	0.1839	19.7	4.8700	0.0005*
	VL-VN Warmed	0.5860	0.1839	19.7	-2.6800	0.0639*
	VL Ambient-Warmed	-0.1839	0.1839	19.7	-1.0000	0.7510
	VN Ambient-Warmed	-0.4928	0.1839	19.7	-2.6800	0.0639*
log(<i>hsp90</i>)	VL-VN Ambient	1.1624	0.0992	36.9	11.7200	<0.0001*
	VL-VN Warmed	1.9656	0.0992	36.9	19.8100	<0.0001*
	VL Ambient-Warmed	-0.2336	0.0992	36.9	-2.3500	<0.0001*
	VN Ambient-Warmed	0.5696	0.0992	36.9	5.7400	<0.0001*
log(<i>hsp70</i>)	VL-VN Ambient	-0.7011	0.1853	20.0	-3.7800	0.0059*
	VL-VN Warmed	0.8527	0.1853	20.0	4.6000	0.0009*
	VL Ambient-Warmed	-0.6008	0.1853	20.0	-3.2400	0.0196*
	VN Ambient-Warmed	0.9530	0.1853	20.0	5.1400	0.0003*
<i>hsp60</i>	VL-VN Ambient	27.3087	5.4072	9.6	5.0500	0.0026*
	VL-VN Warmed	-2.7253	5.4072	9.6	-0.5000	0.9562
	VL Ambient-Warmed	9.3776	5.7113	19.1	1.6400	0.4018
	VN Ambient-Warmed	-20.6564	5.7113	19.1	-3.6200	0.0218*
<i>pfk</i>	VL-VN Ambient	11.2233	3.8911	33.0	2.8800	0.0330*
	VL-VN Warmed	12.9820	3.8911	33.0	3.3400	0.0108*
	VL Ambient-Warmed	6.0657	3.8911	33.0	1.5600	0.4153
	VN Ambient-Warmed	7.8245	3.8911	33.0	2.0100	0.2046

Mixed Model Analysis of Covariance - Heat Shocked LSMEANS

* Significant at $P < 0.1$

Table S6. Mixed model ANCOVA LSMEANS results for the recovery data from the chronic field pond temperature challenge.

Factor	Comparison	Estimate	Std. Error	df	t-value	Adjusted P
log(Condition)	VL-VN Ambient	-0.0439	0.0506	15.9	-0.8700	0.8205
	VL-VN Warmed	-0.0955	0.0506	15.9	-1.8900	0.2720
	VL Ambient-Warmed	0.0646	0.0525	26.5	1.2300	0.6173
	VN Ambient-Warmed	-1.6131	0.5848	25.5	-2.7600	0.0475*
TGR	VL-VN Ambient	-0.0012	0.0007	19.5	-1.5200	0.4426
	VL-VN Warmed	-0.0001	0.0007	19.5	-0.1800	0.9979
	VL Ambient-Warmed	0.0013	0.0007	19.5	1.7500	0.3261
	VN Ambient-Warmed	0.0024	0.0007	19.5	3.1000	0.0273*
SGR	VL-VN Ambient	0.0058	0.0010	10.1	5.3500	0.0015*
	VL-VN Warmed	0.0041	0.0010	10.1	3.7800	0.0157*
	VL Ambient-Warmed	0.0017	0.0013	18.0	1.3000	0.5815
	VN Ambient-Warmed	0.0000	0.0013	18.0	0.0300	1.0000
log(Glycogen)	VL-VN Ambient	0.1384	0.1951	25.9	0.7100	0.8926
	VL-VN Warmed	0.0515	0.1951	25.9	0.2600	0.9934
	VL Ambient-Warmed	0.0025	0.1951	25.9	0.0100	1.0000
	VN Ambient-Warmed	-0.0842	0.1951	25.9	-0.4300	0.9724
log(Triglycerides)	VL-VN Ambient	0.5418	0.2999	19.8	1.8100	0.2997
	VL-VN Warmed	0.1377	0.2999	19.8	0.4600	0.9671
	VL Ambient-Warmed	0.4899	0.2999	19.8	1.6300	0.3836
	VN Ambient-Warmed	0.0857	0.2999	19.8	0.2900	0.9916
log(<i>hsp90</i>)	VL-VN Ambient	0.6500	0.1178	20.7	5.5200	<0.0001*
	VL-VN Warmed	0.2553	0.1178	20.7	2.1700	0.1659
	VL Ambient-Warmed	0.2675	0.1178	20.7	2.2700	0.1378
	VN Ambient-Warmed	-0.1273	0.1178	20.7	-1.0800	0.7052
log(<i>hsp70</i>)	VL-VN Ambient	1.5611	0.3601	20.9	4.3400	0.0016*
	VL-VN Warmed	2.2739	0.3601	20.9	6.3100	<0.0001*
	VL Ambient-Warmed	-0.0959	0.3601	20.9	-0.2700	0.9932
	VN Ambient-Warmed	0.6168	0.3601	20.9	1.7100	0.3424
<i>hsp60</i>	VL-VN Ambient	4.3339	2.2381	17.3	1.9400	0.2498
	VL-VN Warmed	-5.4177	2.2381	17.3	-2.4200	0.1101
	VL Ambient-Warmed	10.7496	2.6167	20.4	4.1100	0.0036*
	VN Ambient-Warmed	0.9980	2.6167	20.4	0.3800	0.9805
log(<i>pfk</i>)	VL-VN Ambient	0.5428	0.1408	22.0	3.8600	0.0044*
	VL-VN Warmed	0.4151	0.1408	22.0	2.9500	0.0347*
	VL Ambient-Warmed	-0.1041	0.2039	17.1	-0.5100	0.9558
	VN Ambient-Warmed	-0.2318	0.2039	17.1	-1.1400	0.6715

Mixed Model Analysis of Covariance – Recovery LSMEANS

* Significant at $P < 0.1$