SUPPLEMENTARY INFORMATION

Chronic exposure to environmental temperature attenuates the thermal sensitivity of salmonids

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Table S1: Number of fish individuals captured by electrofishing including in the field respirometry per experimental context and per specie. Mean weight (in g) and standard deviation are also indicated.

Specie	Experimental context	$N_{initial}$	Mean Weight (g)	SD
Brown trout	SW Iceland_$_{AC}$	83	19.827	13.037
Brown rout	SW Iceland_$_{CH}$	90	51.416	51.777
Brown trout	UK_$_{CH}$	188	8.23	3.208
Brown trout	Spain_$_{CH}$	93	22.47	26.244
Salmon	Spain_$_{CH}$	22	9.995	9.715
Salmon	NE Iceland_$_{CH}$	35	11.486	4.678

Table S2: Parameter estimates in our previous work[1] for the bioenergetics model used in the Hengill streams.

Parameter	**Lower 95% CI**	**Estimate**	**Upper 95% CI**
A_{G2}	3.158	4.097	4.385
A_{G3}	7.079	7.079	7.079
A_{H2}	-7.241	-7.241	-7.241
A_{H3}	2.332	8.995	10.354
C_{G2}	-1.056	-0.453	-0.327
C_{G3}	1.002	1.002	1.002
C_{H2}	-1.002	-1.002	-1.002
C_{H3}	-2.985	-0.210	0.538
A_K	17.491	18.082	18.657
E_K	-0.468	-0.304	0.200

Table S3: Statistical output of multiple linear regression model describing the relationship between routine metabolic rate [ln(I) in mg O2 h^{-1}] as the response variable and fish body mass [ln(M) in mg], standardised Arrhenius temperature (T_A in K), and the source stream that the fish were collected from (S; with 3 levels: IS1, IS12 and IS5) as explanatory variables.

Effects	**DF**	**Sum of squares**	**Mean square**	***F* value**	***p* value**
ln(M)	1	17.060	17.060	61.999	<0.001
T_A	1	5.631	5.631	20.463	<0.001
S	2	0.689	0.344	1.252	0.292
Residuals	74	20.362	0.275		

Figure S1: Length-weight relationship used to obtained individual weights (g) of brown trout (Hengill system- SW Iceland$_{AC}$) and Atlantic salmon (NE Iceland$_{CH}$). a) Linear regression $y = 3.02x - 5.00$, $F_{1,457} = 2.76\times10^4$, $p < 0.001$, $r^2 = 0.98$, and b) Linear regression $y = 2.69x - 4.40$, $F_{1,62} = 1448$, $p < 0.001$, $r^2 = 0.96$. Note that the relationships were constructed from empirical length and weight data collected at the very same sites.

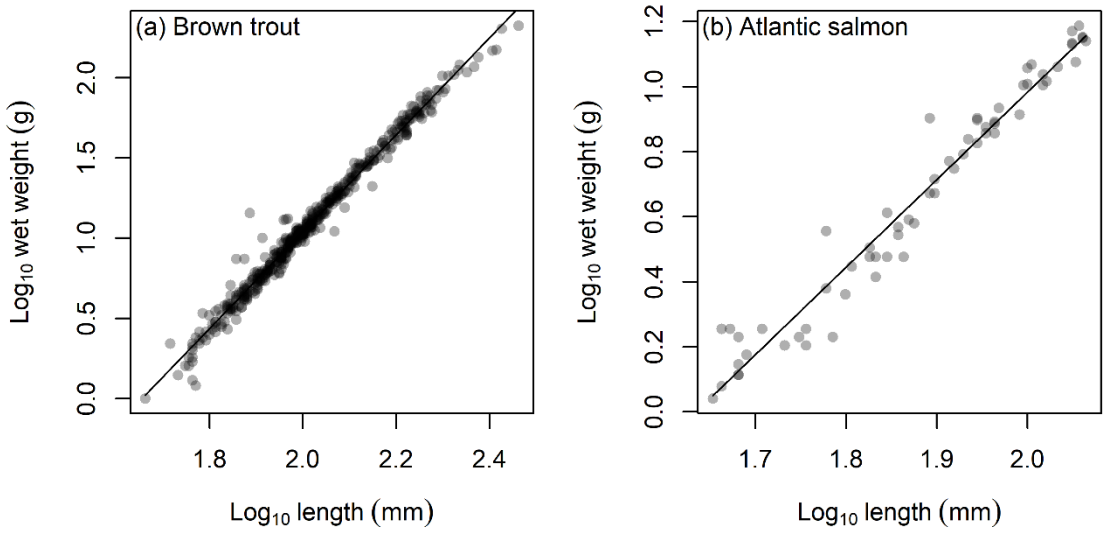
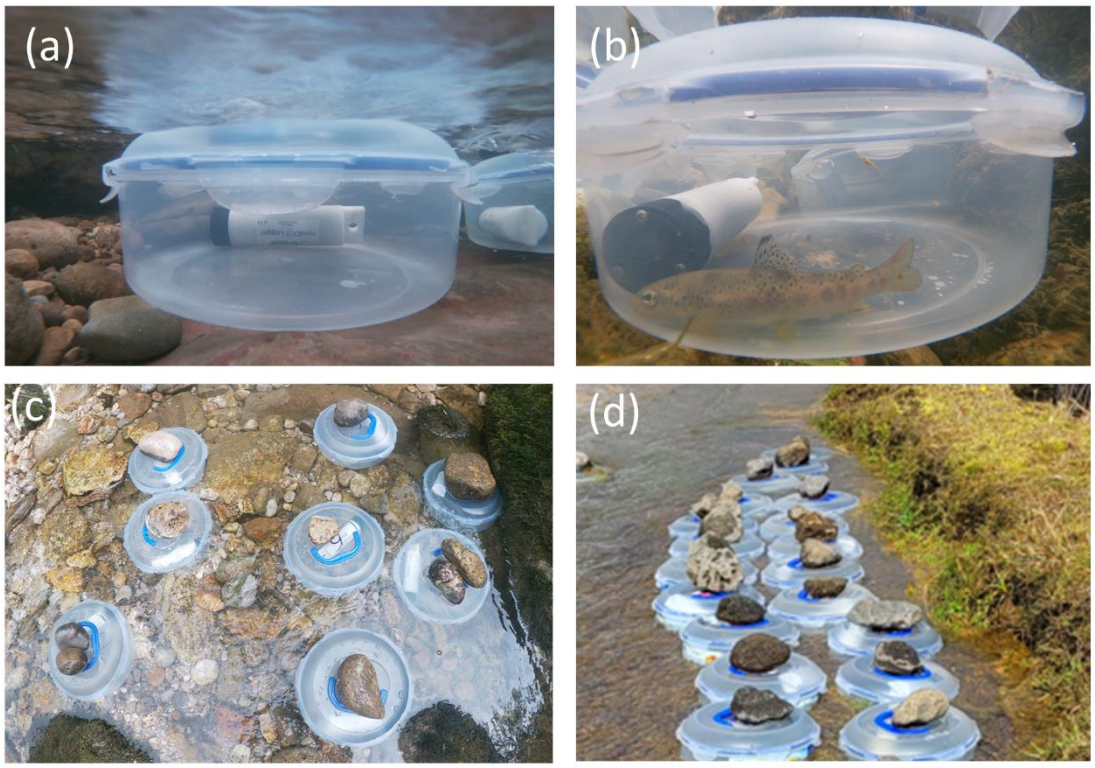


Figure S2: Photographs taken during field sampling for illustrative purposes. a) Control chamber, b) fish respiration chamber, c) top view of chambers and d) frontal view of chambers placed into the water with rock on the top. See methods in the main text for more information.



References

1. O'Gorman, E. J. *et al.* Unexpected changes in community size structure in a natural warming experiment. *Nat Clim Chang* **7**, 659–663 (2017).