

Table S1. Results for two-factor ANCOVAs run on all dependent variables

Dependent variable	Independent variable			
	Feeding treatment	Ambient temperature	Pre-meal body mass	Individual
Time to torpor entry (min)	$F_{39,2}=9.2, P=0.001$	$F_{39,1}=3.6, P=0.07$	$F_{39,1}=8.6, P=0.005$	$F_{39,8}=4.2, P=0.001$
Duration of cooling period (min)	$F_{39,2}=2.7, P=0.08$	$F_{39,1}=5.5, P=0.02$	$F_{39,1}=0.0, P=0.91$	$F_{37,8}=1.6, P=0.15$
Maximum rate of torpor entry (ml O ₂ min ⁻¹)	$F_{38,2}=1.4, P=0.26$	$F_{38,1}=10.9, P=0.002$	$F_{38,1}=3.3, P=0.08$	$F_{38,8}=1.7, P=0.13$
Mean pre-torpor normothermic \dot{V}_{O_2} (ml O ₂ h ⁻¹)	$F_{39,2}=3.7, P=0.03$	$F_{39,1}=31.5, P<0.001$	$F_{39,1}=0.2, P=0.66$	$F_{39,8}=1.2, P=0.32$
Mean torpid MR (kJ h ⁻¹)	$F_{39,2}=0.0, P=0.99$	$F_{39,1}=45.6, P<0.001$	$F_{39,1}=0.1, P=0.76$	$F_{39,8}=1.3, P=0.26$
Mean pre-torpor normothermic MR (kJ h ⁻¹)	$F_{37,2}=0.3, P=0.76$	$F_{37,1}=14.1, P=0.001$	$F_{37,1}=1.5, P=0.23$	$F_{37,8}=0.9, P=0.55$
Total energy expended before torpor (kJ)	$F_{39,2}=13.1, P<0.001$	$F_{39,1}=15.1, P<0.001$	$F_{39,1}=9.7, P=0.003$	$F_{39,8}=5.1, P<0.001$
Total energy expended over entire trial (kJ)	$F_{39,2}=9.0, P=0.001$	$F_{39,1}=0.2, P=0.64$	$F_{39,1}=15.2, P<0.001$	$F_{39,8}=4.2, P=0.001$
Reduction in body mass (g)	$F_{39,2}=9.6, P<0.001$	$F_{39,1}=29.3, P<0.001$	$F_{39,1}=11.7, P=0.001$	$F_{39,8}=3.7, P=0.002$

MR, metabolic rate; \dot{V}_{O_2} , rate of oxygen consumption.