Table S1: Results of final endurance trials in terms of time and distance for control, sprint-trained, and endurance-trained male and female *Anolis carolinensis*. All values are means (± 1 SD).

(a)#Males

	Treatment	Time (min)	Distance (m)	Recovery (min)
	Control	3.49 (0.97)	176.26 (49.1)	7.46 (4.76)
	Sprint	7.17 (3.12)	360.6 (157.5)	22.38 (7.3)
	Endurance	8.1 (4.4)	409.1 (222.64)	15.35 (3.9)

(b)#Females

	Treatment	Time (min)	Distance (m)	Recovery (min)
	Control	3.14 (1.24)	158.42 (62.5)	8.15 (4.06)
	Sprint	5.23 (1.49)	264.14 (75.1)	21.6 (8.8)
	Endurance	5.62 (2.38)	284 (120)	12.83 (5.38)

Table S2: Minimal CO_2 production during both active (RMR) and inactive periods (SMR), as well as the difference between peak VCO_2 following exercise and RMR (i.e. ΔRMR) and SMR (ΔSMR) respectively for control, sprint-trained, and endurance-trained (a) male and (b) female *Anolis carolinensis*. All values have units of ml CO_2/hr, and are shown as means (± 1 SD).

(a)#Males

	Treatment	RMR	SMR	ΔRMR	ΔSMR
	Control	1.55 (0.36)	0.87 (0.6)	3.59 (1.96)	4.26 (2.18)
	Sprint	0.73 (0.36)	0.59 (047)	4.14 (1.35)	4.28 (1.41)
	Endurance	0.74 (0.6)	0.41 (0.38)	4.57 (1.33)	4.9 (0.97)

(b)#Females

	Treatment	RMR	SMR	ΔRMR	ΔSMR
	Control	0.8 (0.39)	0.4 (0.31)	1.81 (0.55)	2.22 (0.87)
	Sprint	0.3 (0.33)	0.23 (0.2)	3.5 (0.93)	3.58 (1.17)
	Endurance	5.62 (0.35)	0.24 (0.2)	2.83 (0.88)	3.07 (0.97)

Table S3: Best-fitting models describing the variation in (a) (mass-specific metabolic rate)$^{0.4}$, and (b) (Δ mass-specific MR)$^{0.45}$. The baseline category for MR type is RMR, and that for Treat is control (C). Thus, the reported values give estimated change in the dependent variable between the category named in the table and the baseline category. Bold values indicate significant (P < 0.05) estimates.

| (a) (MR/mass)$^{0.4}$	Model term	Coefficient	SE	d.f	t value	P value
	Intercept	0.61	0.032	35	19.17	**<0.001**
	MR type(smr)	-0.12	0.032	35	-3.75	**<0.001**
	Treat(E)	-0.11	0.039	33	-2.72	**0.01**
	Treat(S)	-0.12	0.039	33	-2.98	**0.005**
(b) (ΔMR/mass)$^{0.45}$						
	Intercept	0.9	0.066	33	13.81	**<0.001**
	Sex (m)	-0.11	0.064	32	-1.77	0.08
	MR type(smr)	0.09	0.026	33	3.6	**0.001**
	Treat(E)	0.24	0.08	32	2.98	**0.005**
	Treat(S)	0.31	0.08	32	3.88	**<0.001**
	MR type(smr):Treat(E)	-0.039	0.036	33	-1.1	0.278
	MR type(smr):Treat(S)	-0.08	0.036	33	-2.18	**0.036**

Figures
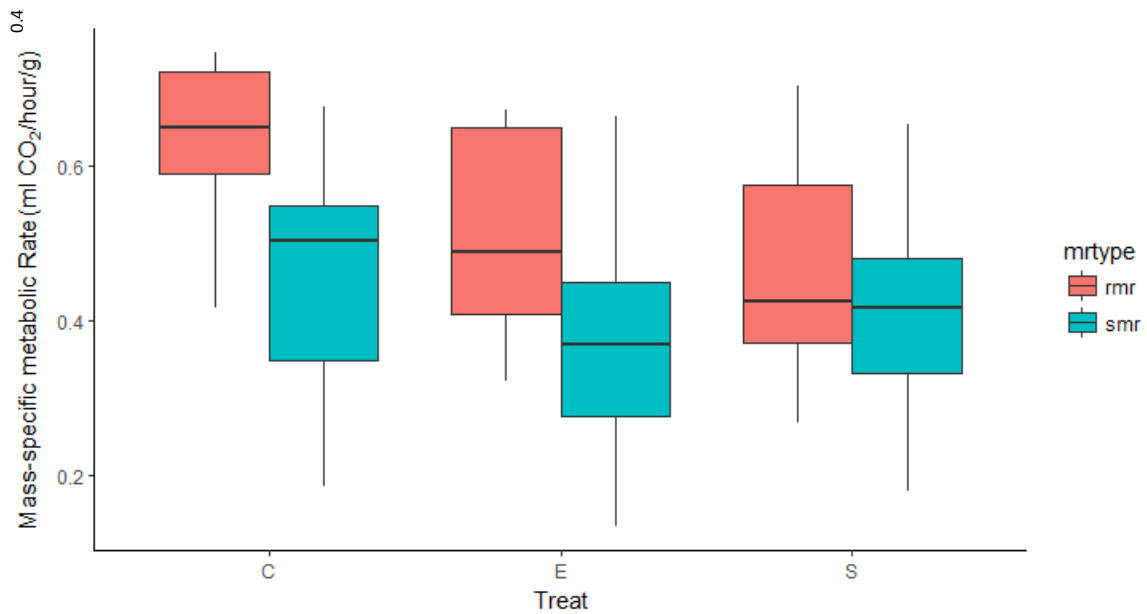
Fig. S1. Influence of MR type and training treatment on mass-specific MR$^{0.4}$. Mass-specific

MR is higher in control lizards compared to endurance- or sprint-trained lizards. RMR is
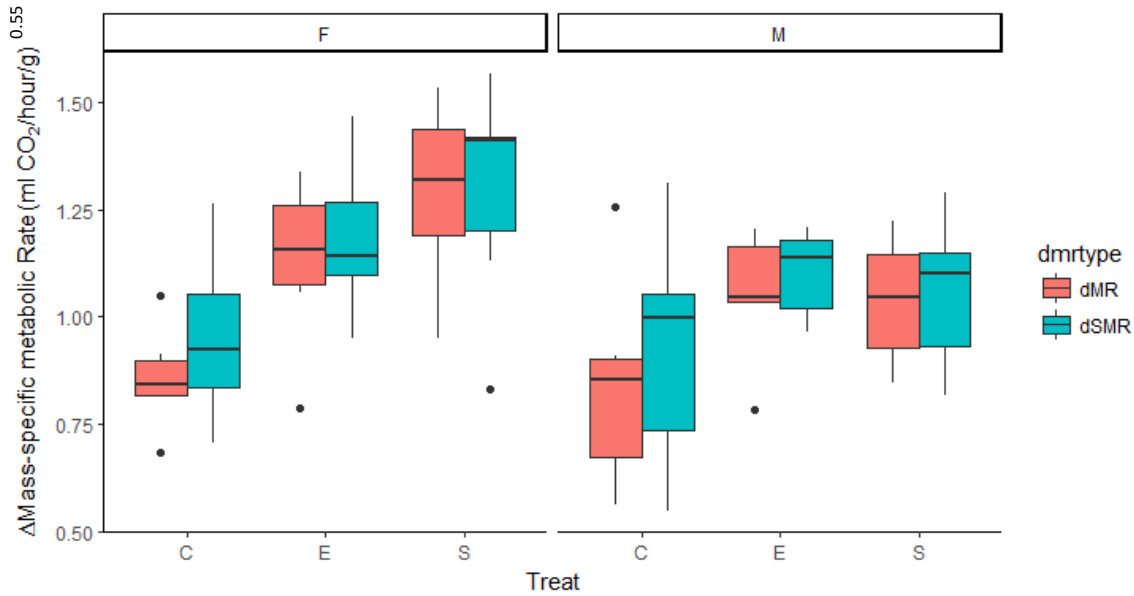
higher than SMR overall.

Fig. S2. Influence of MR type, and training treatment on (Δ mass-specific MR)$^{0.55}$. The

greatest change in mass-specific MR was observed in sprint-trained lizards when comparing

their SMR with their post-exercise peak MR, whereas the change in mass-specific MR of

endurance trained lizards was not different from that of controls. The model also retained a

sex effect whereby the mass-specific MRs of males changed less than those of females.