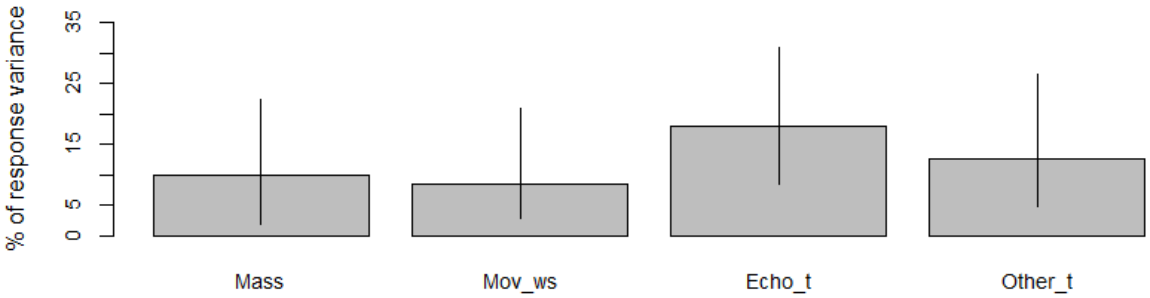

Fig. S1. Bar plots showing relative importance of regressors in the final model (Tables S3 and S4) based on the LMG metric, with 90% bootstrap confidence intervals.

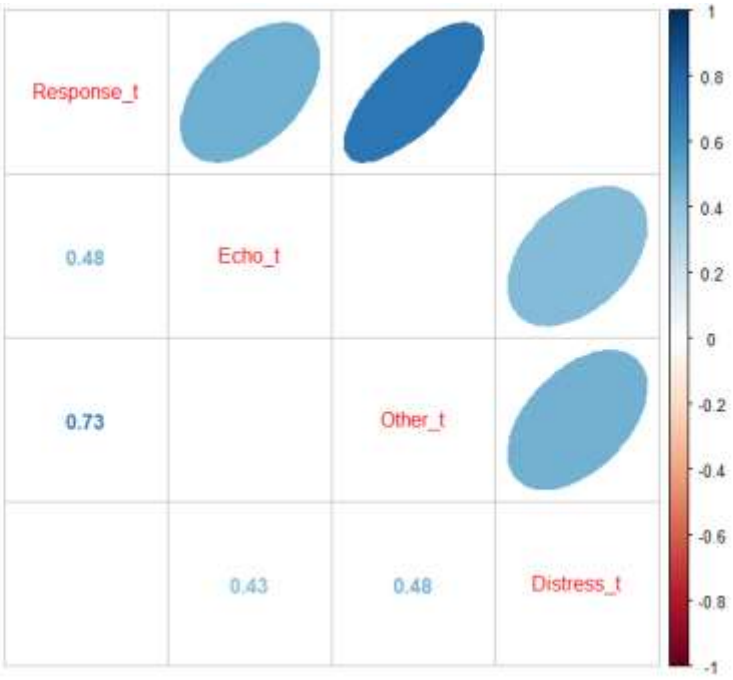

Fig. S2. Plot showing the results of Spearman's rank correlation coefficients for time spent producing various types of calls. Ellipses in the upper triangular matrix show the strength and slope of the coefficient. Coefficient values that are significant (> 0.01) are added to the lower triangular matrix.

Table S1. Results of the linear models to test if there is a difference in energy expenditure by sex (with mass as covariate) in trials with sound and trials without sound.

Trial	Variable	Estimate	S.E.	F-value	P
Without sound	Mass	2.24	0.99	8.84	<0.01
	Sex	6.18	7.46	2.69	0.11
	Mass*Sex	-1.70	1.73	0.96	0.33
With sound	Mass	2.80	2.36	2.75	0.10
	Sex	1.76	17.73	0.67	0.67
	Mass*Sex	-0.57	4.12	0.89	0.89

Table S2. Results of the linear model to test if the difference in energy expenditure with and without sound is explained by sex and whether bats produce response calls or not (vocal), with mass as covariate. The interaction between factors was initially added to the model but was non-significant, thus was later removed.

Variable	Estimate	S.E.	F- value	P
Mass	3.53	1.86	0.20	0.65
Sex	1.55	1.47	0.08	0.76
Vocal	5.35	1.42	14.15	< 0.001

Table S3. Models used to test how time spent in various activities, including moving and producing various types of calls while accounting for the individual's mass, influenced energy expenditure during trials with sound. For each model we present the AIC, and the difference in values when compared with the full model.

Name of model	Model	AIC	ΔAIC
Full model	EE ~ Mass + Move + Time vocal	192.58	0
Null model	EE ~ 1	203.91	11.33
All calls except response	EE ~ Mass + Move + Time vocal-response	192.49	-0.09
All calls except echolocation	EE ~ Mass + Move + Time vocal-echolocation	194.10	1.52
All calls except other	EE ~ Mass + Move + Time vocal-other	192.71	0.13
All calls except distress	EE ~ Mass + Move + Time vocal-distress	192.31	-0.27
All calls except response and echolocation	EE ~ Mass + Move + Time vocal-response and echolocation	195.30	2.72
All calls except response and other	EE ~ Mass + Move + Time vocal-response and other	193.28	0.7

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All calls except response and distress	EE ~ Mass + Move + Time vocal-response and distress	186.11	-6.47
All calls except echolocation and other	EE ~ Mass + Move + Time vocal-echolocation and other	194.29	1.71
All calls except echolocation and distress	EE ~ Mass + Move + Time vocal-echolocation and distress	193.98	1.4
All calls except other and distress	EE ~ Mass + Move + Time vocal-other and distress	192.50	-0.08
Only response calls	EE ~ Mass + Move + Only response	194.22	1.64
Only echolocation calls	EE ~ Mass + Move + Only echolocation	188.38	-4.2
Only other calls	EE ~ Mass + Move + Only other	192.98	0.4
Only distress calls	EE ~ Mass + Move + Only distress	195.52	2.94
Final model	EE ~ Mass + Move + Echolocation + Other	188.05	-4.53

Table S4. Results of the full and final linear models (see Table S3) to test how time spent in various activities, including moving and producing calls while accounting for the individual's mass, influenced energy expenditure during trials with sound.

Model	Variable	Estimate	S.E.	F- value	P
Full	Mass	4.05	1.47	4.12	0.05
	Move	0.56	0.34	13.00	0.001
	Time vocal	0.03	0.02	2.72	0.10
Final	Mass	3.50	1.42	4.80	0.3
	Move	0.13	0.36	15.17	< 0.001
	Echolocation	0.21	0.08	7.26	0.01
	Other	0.26	0.18	2.06	0.16

Table S5. Results of the generalized linear model to test if time spent producing response calls was influenced by mass and RMR.

Variable	Estimate	S.E.	P
Sex	2.92	1.80	0.42
RMR	-0.06	0.18	0.14
Sex*RMR	-0.92	0.80	0.05
Body mass	-0.34	0.80	0.95