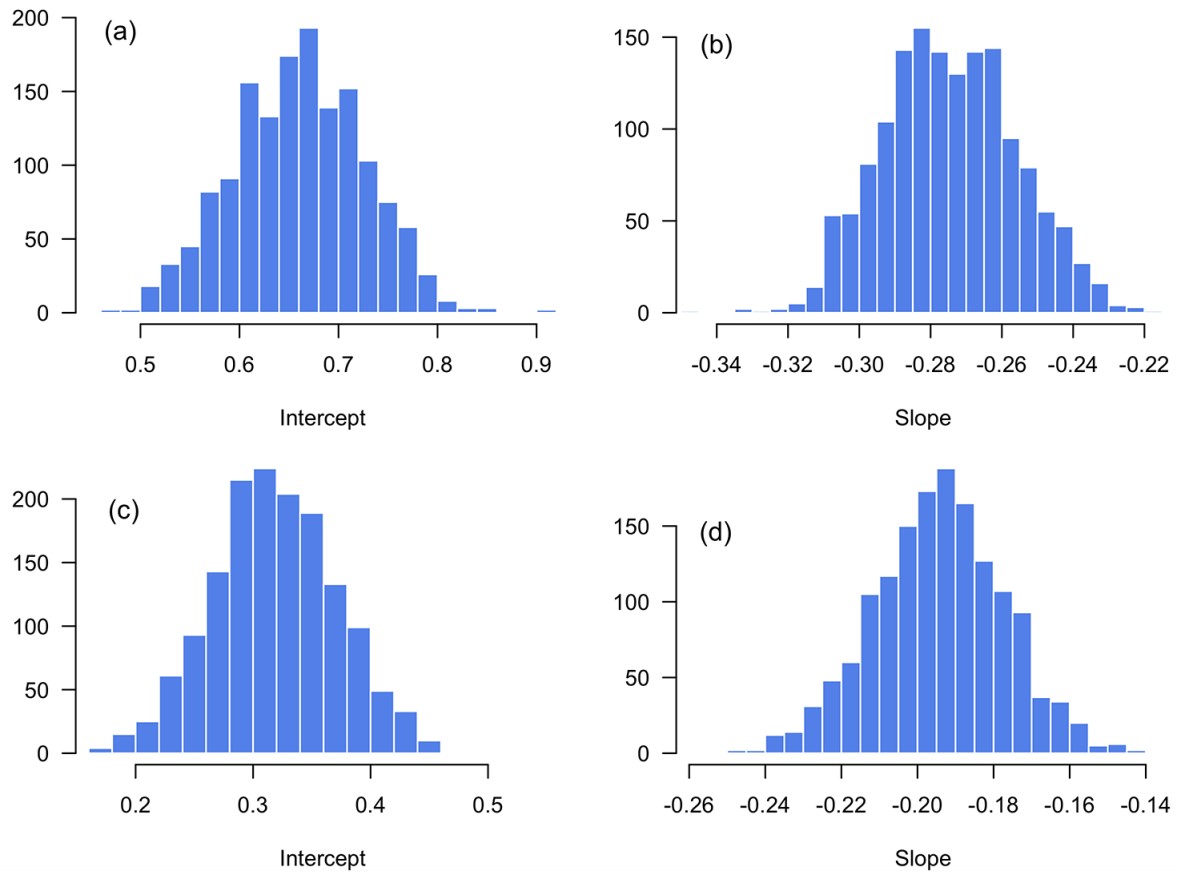


1 Supporting Information



2

3 **Figure S1.** Distribution of the linear regression coefficients sampled through the MCMC chains. (a, b)

4 Linear regression between body mass and r_m ; (c, d) Linear regression between body mass and σ_r . The

5 coefficient distributions are used to predict a distribution of r_m and σ_r as a function of body mass.

7 **Table S1.** Species-specific MVP targets for 3457 terrestrial mammal species.

8 Please find the species-specific MVP targets in the attached Excel file.

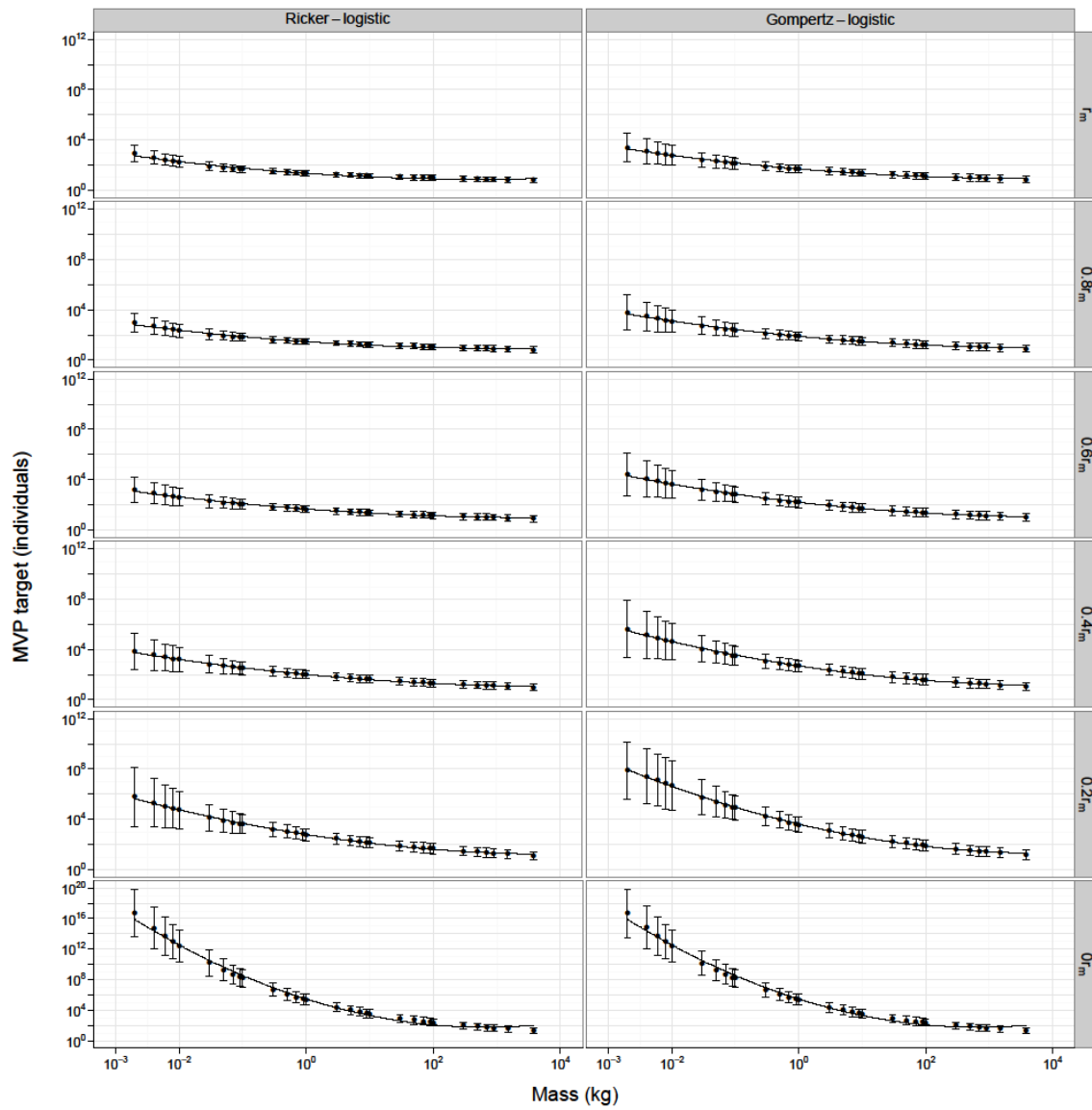
9

Table S2. Corrected Akaike's information criterion values for the regression models (intercept-only, linear and quadratic) of the log10-transformed population targets against log10-transformed body masses (N=31) of the population models using an extinction threshold of 2 individuals and different intrinsic growth rate conditions.

Condition	Regression model	Population model		
		Consensus	Ricker-logistic	Gompertz-logistic
r_m	Intercept-only	64.57	57.45	71.10
	Linear	-6.60	-4.28	-8.69
	Quadratic	-78.76	-64.64	-96.84
$0.8 \times r_m$	Intercept-only	69.36	58.07	78.97
	Linear	-8.96	-12.49	-5.28
	Quadratic	-87.66	-76.23	-100.97
$0.6 \times r_m$	Intercept-only	78.67	63.80	90.67
	Linear	-6.58	-16.57	2.19
	Quadratic	-96.10	-91.13	-101.18
$0.4 \times r_m$	Intercept-only	95.48	78.89	108.56
	Linear	6.87	-9.12	19.60
	Quadratic	-93.11	-102.30	-84.81
$0.2 \times r_m$	Intercept-only	123.88	109.77	135.38
	Linear	35.28	20.67	47.39
	Quadratic	-86.15	-79.36	-77.90
$0.0 \times r_m$	Intercept-only	183.27	183.28	183.27
	Linear	116.96	116.95	116.97
	Quadratic	24.78	24.65	24.95

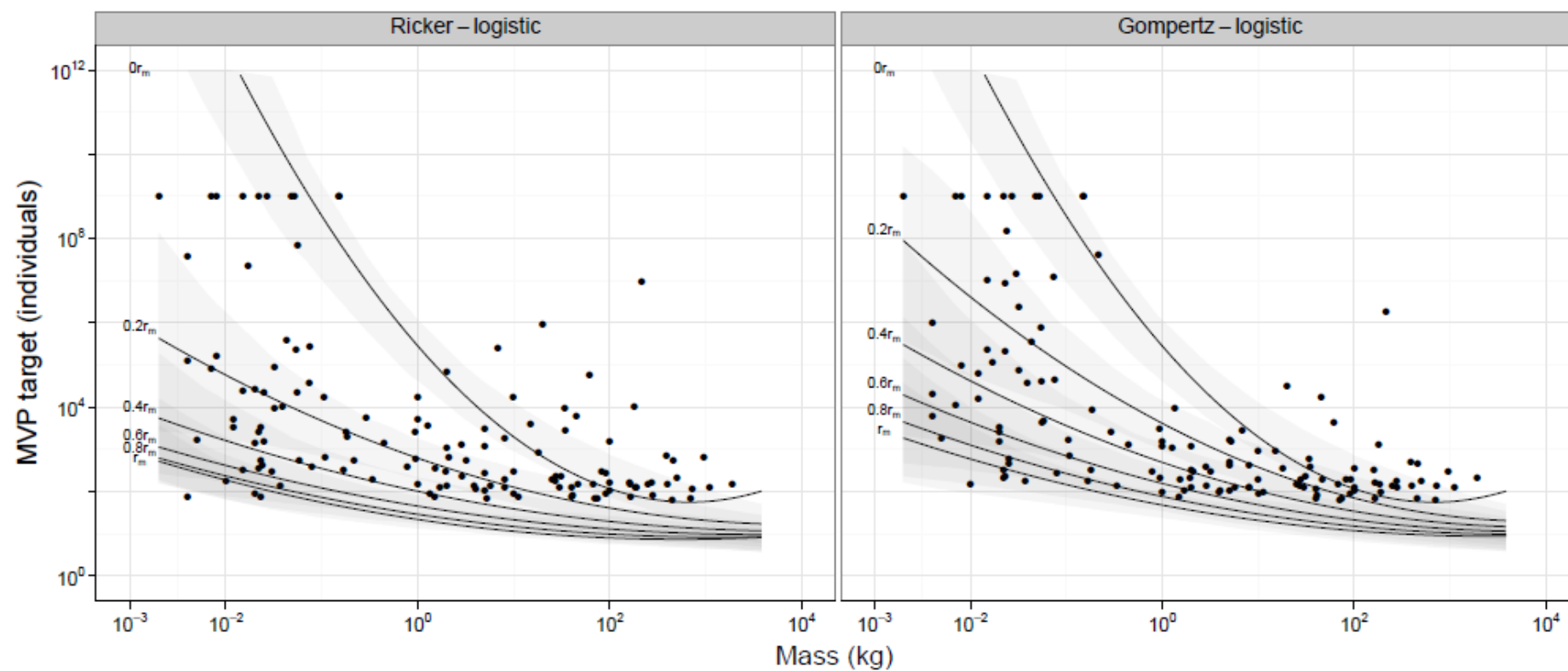
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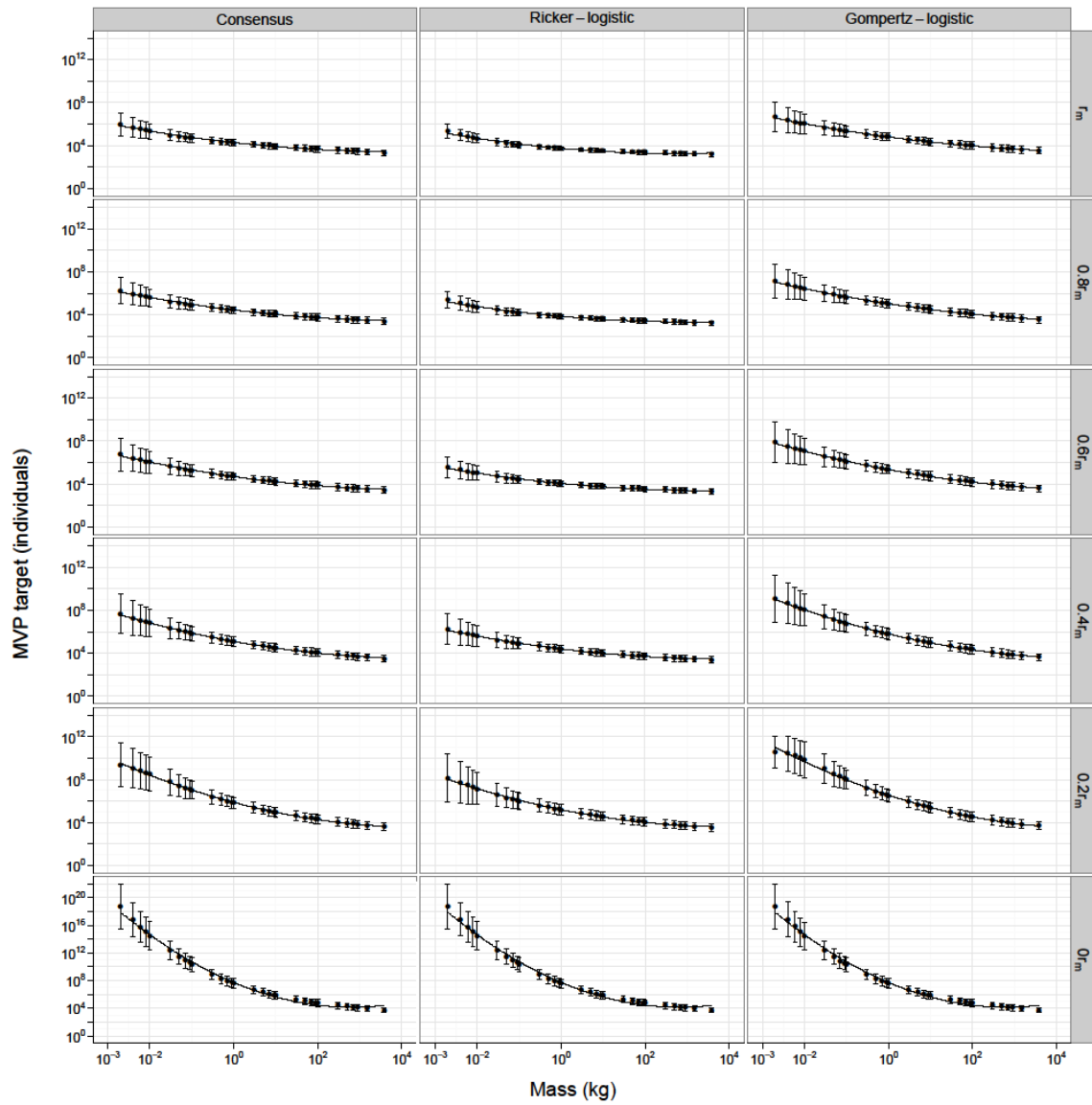
12

13 **Figure S2.** MVP targets (in individuals) in relation to body mass (in kg) for the Ricker-logistic and
 14 Gompertz-logistic models with six different intrinsic growth rate conditions (r_m , $0.8r_m$, $0.6r_m$, $0.4r_m$,
 15 $0.2r_m$ and $0r_m$) and the extinction threshold set at 2 individuals. Dots represent the means of the
 16 MVP targets, lines represent the fit through the means, and whiskers represent two standard
 17 deviations above and below the mean.



18

19 **Figure S3.** The comparison of the regressions on the MVP targets from the Ricker-logistic and Gompertz-logistic models (lines represent the model fits
 20 through the means and shades represent two standard deviations above and below the mean) with 135 species- and context-specific MVP estimates of
 21 terrestrial mammals obtained from Brook et al. (2006) (dots).



22

23 **Figure S4.** MVP targets (in individuals) in relation to body mass (in kg) for the consensus, Ricker-
 24 logistic and Gompertz-logistic models with six different intrinsic growth rate conditions (r_m , $0.8r_m$,
 25 $0.6r_m$, $0.4r_m$, $0.2r_m$ and $0r_m$) and the extinction threshold set at 500 individuals. Dots represent the
 26 means of the MVP targets, lines represent the fit through the means, and whiskers represent two
 27 standard deviations above and below the mean.