Science Advances
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Supplementary Materials for

Herbivores at the highest risk of extinction among mammals, birds, and reptiles

Trisha B. Atwood*, Shaley A. Valentine, Edd Hammill, Douglas J. McCauley, Elizabeth M. P. Madin, Karen H. Beard, William D. Pearse

*Corresponding author. Email: trisha.atwood@usu.edu

Published 5 August 2020, *Sci. Adv.* **6**, eabb8458 (2020)
DOI: 10.1126/sciadv.abb8458

The PDF file includes:

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(available at advances.sciencemag.org/cgi/content/full/6/32/eabb8458/DC1)

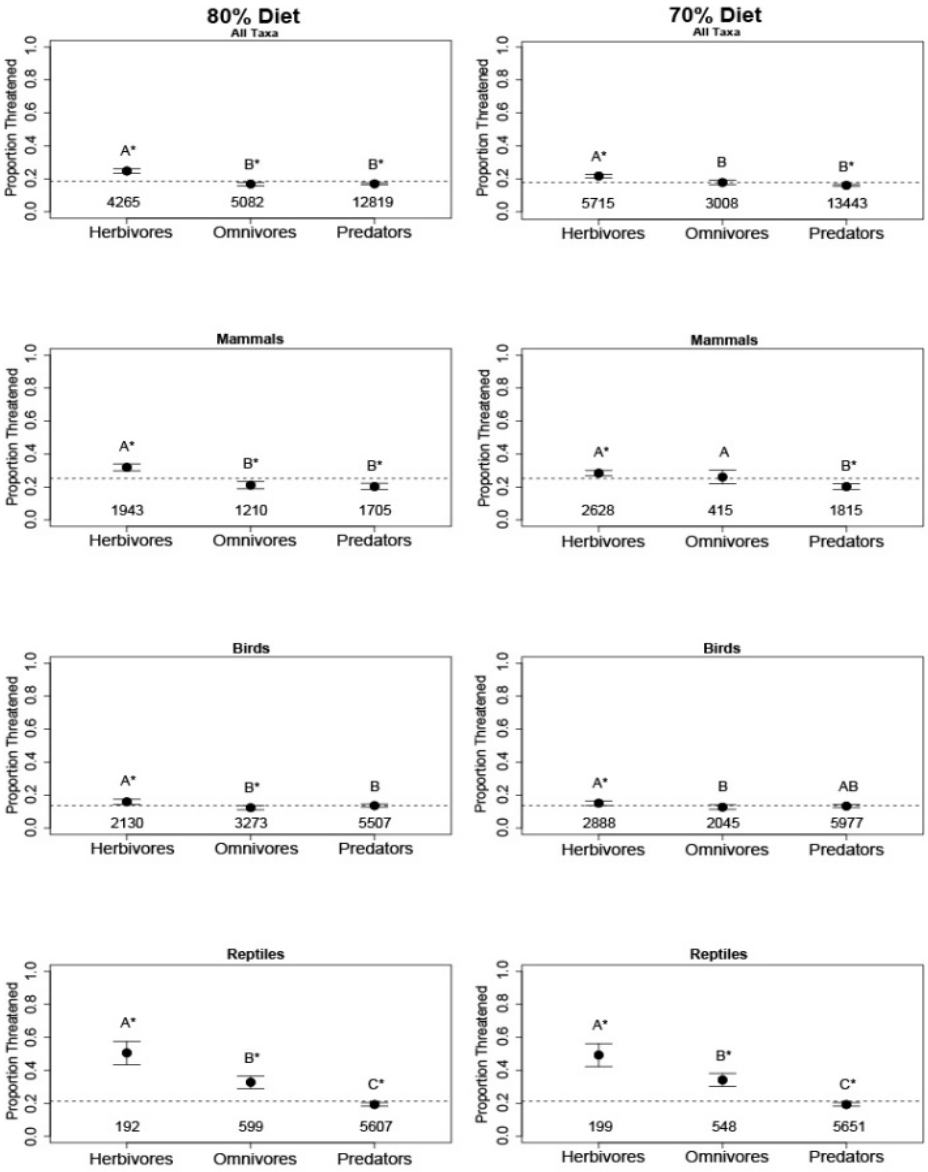

Fig. S1. Sensitivity analysis for patterns of extinction risk by trophic level. The mean proportions of threatened vertebrate species (± 95% CI) within herbivores, omnivores, and predators summarized for all species combined and within each of these three major taxonomic classes (mammals, birds, and reptiles). The 80% diet defines predators as species that consume a ≥ 80% animal-based diet, herbivores as species that consume a ≥ 80% plant-based diet, and omnivores as species that consume an 21-79% animal or plant-based diet. The 70% diet defines predators as species that consume a ≥ 70% animal-based diet, herbivores as species that consume a ≥ 70% plant-based diet, and omnivores as species that consume an 31-69% animal or plant-based diet. Asterisks indicate where the proportions of threatened species are significantly different from the background fraction (dashed horizontal line). Letters indicate the results for comparisons across trophic group using Tukey's post hoc tests. Differing letters indicate significant differences among trophic groups ($p < 0.05$). Numbers indicate sample size.

Table S1: Summary statistics for generalized linear models (GLM) and post hoc Tukey's analyses examining trophic group differences in the proportion of species listed as threatened by the IUCN. LR = likelihood ratio test; DF= degrees of freedom.

	DF	LR-Chi^2	P-value
GLM results			
All species combined	2	154.06	<0.001
Mammals	2	69.421	<0.001
Birds	2	30.736	<0.001
Reptiles	2	140.77	<0.001
Tukey's results			
All species combined			
Herbivores: Omnivores			<0.001
Herbivores: Predators			<0.001
Predators: Omnivores			<0.001
Mammals			
Herbivores: Omnivores			<0.001
Herbivores: Predators			<0.001
Predators: Omnivores			0.871
Birds			
Herbivores: Omnivores			<0.001
Herbivores: Predators			0.105
Predators: Omnivores			<0.001
Reptiles			
Herbivores: Omnivores			<0.001
Herbivores: Predators			<0.001
Predators: Omnivores			<0.001

Supplementary Table 2: Summary statistics for trophic groups for all species combined (All), mammals, reptiles, and birds across marine and terrestrial regions. Mean proportion is the proportion listed as threatened (± 95% Confidence Intervals) for each region. GLM p-value represents the results from the binomial GLM comparing trophic groups.

Region	Taxonomic class	Trophic group	Sample size	Mean proportion	Upper CI	Lower CI	Global proportion	GLM p-value
Arctic Sea	All	Predator	17	23.52%	43.71%	3.33%	25.10%	NA
Arctic Sea	Mammals	Predator	17	23.52%	43.71%	3.33%	25.10%	NA
Atlantic Ocean	All	Herbivore	3	100.00%	100.00%	99.99%	18.41%	< 0.001
Atlantic Ocean	All	Omnivore	3	100.00%	100.00%	99.99%	18.41%	< 0.001
Atlantic Ocean	All	Predator	70	22.86%	32.69%	13.02%	18.41%	< 0.001
Atlantic Ocean	Mammals	Herbivore	2	100.00%	100.00%	100.00%	25.10%	0.014
Atlantic Ocean	Mammals	Predator	68	20.60%	30.20%	11.00%	25.10%	0.014
Atlantic Ocean	Reptiles	Herbivore	1	100.00%	100.00%	100.00%	21.40%	0.992
Atlantic Ocean	Reptiles	Omnivore	3	100.00%	100.00%	100.00%	21.40%	0.992
Atlantic Ocean	Reptiles	Predator	2	100.00%	100.00%	100.00%	21.40%	0.992
Pacific Ocean	All	Herbivore	3	100.00%	100.00%	99.98%	18.41%	0.001
Pacific Ocean	All	Omnivore	2	100.00%	100.00%	99.98%	18.41%	0.001
Pacific Ocean	All	Predator	119	21.85%	29.27%	14.42%	18.41%	0.001
Pacific Ocean	Mammals	Herbivore	1	100.00%	100.00%	100.00%	25.10%	0.108
Pacific Ocean	Mammals	Predator	78	26.90%	36.80%	17.10%	25.10%	0.108
Pacific Ocean	Reptiles	Herbivore	2	100.00%	100.00%	100.00%	21.40%	0.001
Pacific Ocean	Reptiles	Omnivore	2	100.00%	100.00%	100.00%	21.40%	0.001
Pacific Ocean	Reptiles	Predator	41	12.20%	22.20%	2.18%	21.40%	0.001
Indian Ocean	All	Herbivore	2	100.00%	100.00%	99.99%	18.41%	0.002
Indian Ocean	All	Omnivore	2	100.00%	100.00%	99.99%	18.41%	0.002
Indian Ocean	All	Predator	81	19.75%	28.42%	11.08%	18.41%	0.002
Indian Ocean	Mammals	Herbivore	1	100.00%	100.00%	100.00%	25.10%	0.097
Indian Ocean	Mammals	Predator	45	24.40%	37.00%	11.89%	25.10%	0.097
Indian Ocean	Reptiles	Herbivore	1	100.00%	100.00%	100.00%	21.40%	0.005

Indian Ocean	Reptiles	Omnivore	2	100.00%	100.00%	100.00%	21.40%	0.005
Indian Ocean	Reptiles	Predator	36	13.90%	25.20%	2.59%	21.40%	0.005
Mediterranean/Black Sea	All	Herbivore	1	100.00%	100.00%	99.99%	18.41%	0.036
Mediterranean/Black Sea	All	Omnivore	2	100.00%	100.00%	99.99%	18.41%	0.036
Mediterranean/Black Sea	All	Predator	15	26.67%	49.05%	4.29%	18.41%	0.036
Mediterranean/Black Sea	Mammals	Predator	14	21.43%	42.99%	0.00%	25.10%	NA
Mediterranean/Black Sea	Reptiles	Herbivore	1	100.00%	100.00%	100.00%	21.40%	1.000
Mediterranean/Black Sea	Reptiles	Omnivore	2	100.00%	100.00%	100.00%	21.40%	1.000
Mediterranean/Black Sea	Reptiles	Predator	1	100.00%	100.00%	100.00%	21.40%	1.000
Antarctic	All	Predator	172	18.60%	24.42%	12.79%	18.41%	0.164
Antarctic	All	Herbivore	20	10.00%	23.15%	0.00%	18.41%	0.164
Antarctic	All	Omnivore	29	6.90%	16.12%	0.00%	18.41%	0.164
Antarctic	Birds	Herbivore	17	0.00%	0.00%	0.00%	13.68%	0.007
Antarctic	Birds	Omnivore	27	3.70%	10.80%	0.00%	13.68%	0.007
Antarctic	Birds	Predator	145	17.90%	24.20%	11.70%	13.68%	0.007
Antarctic	Mammals	Herbivore	2	50.00%	100.00%	0.00%	25.10%	0.290
Antarctic	Mammals	Predator	25	16.00%	30.40%	1.60%	25.10%	0.290
Caribbean Islands	All	Herbivore	228	18.42%	23.45%	13.39%	18.41%	< 0.001
Caribbean Islands	All	Omnivore	464	10.78%	13.60%	7.95%	18.41%	< 0.001
Caribbean Islands	All	Predator	867	24.91%	27.79%	22.03%	18.41%	< 0.001
Caribbean Islands	Birds	Herbivore	168	10.71%	15.39%	6.04%	13.68%	0.265
Caribbean Islands	Birds	Omnivore	385	7.27%	9.87%	4.68%	13.68%	0.265
Caribbean Islands	Birds	Predator	391	6.65%	9.12%	4.18%	13.68%	0.265
Caribbean Islands	Mammals	Herbivore	45	24.44%	37.00%	11.89%	25.10%	0.219
Caribbean Islands	Mammals	Omnivore	39	10.26%	19.78%	0.74%	25.10%	0.219
Caribbean Islands	Mammals	Predator	97	16.49%	23.88%	9.11%	25.10%	0.219
Caribbean Islands	Reptiles	Herbivore	15	86.67%	100.00%	69.46%	21.40%	0.005
Caribbean Islands	Reptiles	Omnivore	40	45.00%	60.42%	29.58%	21.40%	0.005
Caribbean Islands	Reptiles	Predator	379	45.91%	50.93%	40.89%	21.40%	0.005
East Asia	All	Herbivore	396	19.70%	23.61%	15.78%	18.41%	< 0.001

East Asia	All	Omnivore	829	9.77%	11.79%	7.75%	18.41%	< 0.001
East Asia	All	Predator	1235	12.23%	14.05%	10.40%	18.41%	< 0.001
East Asia	Birds	Herbivore	161	9.32%	13.81%	4.83%	13.68%	0.321
East Asia	Birds	Omnivore	659	7.59%	9.61%	5.57%	13.68%	0.321
East Asia	Birds	Predator	667	9.90%	12.16%	7.63%	13.68%	0.321
East Asia	Mammals	Herbivore	230	25.65%	31.30%	20.01%	25.10%	< 0.001
East Asia	Mammals	Omnivore	136	8.82%	13.59%	4.06%	25.10%	< 0.001
East Asia	Mammals	Predator	269	13.38%	17.45%	9.31%	25.10%	< 0.001
East Asia	Reptiles	Herbivore	5	80.00%	100.00%	44.96%	21.40%	< 0.001
East Asia	Reptiles	Omnivore	34	55.88%	72.57%	39.19%	21.40%	< 0.001
East Asia	Reptiles	Predator	299	16.39%	20.58%	12.19%	21.40%	< 0.001
Europe	All	Herbivore	164	14.02%	19.34%	8.71%	18.41%	< 0.001
Europe	All	Omnivore	407	5.16%	7.31%	3.01%	18.41%	< 0.001
Europe	All	Predator	598	13.04%	15.74%	10.34%	18.41%	< 0.001
Europe	Birds	Herbivore	83	8.43%	14.41%	2.46%	13.68%	0.008
Europe	Birds	Omnivore	350	3.71%	5.70%	1.73%	13.68%	0.008
Europe	Birds	Predator	356	9.27%	12.28%	6.26%	13.68%	0.008
Europe	Mammals	Herbivore	70	14.29%	22.48%	6.09%	25.10%	0.445
Europe	Mammals	Omnivore	39	10.26%	19.78%	0.74%	25.10%	0.445
Europe	Mammals	Predator	127	18.11%	24.81%	11.41%	25.10%	0.445
Europe	Reptiles	Herbivore	11	54.55%	83.97%	25.12%	21.40%	0.048
Europe	Reptiles	Omnivore	18	22.22%	41.43%	3.02%	21.40%	0.048
Europe	Reptiles	Predator	115	19.13%	26.32%	11.94%	21.40%	0.048
Mesoamerica	All	Herbivore	496	15.52%	18.71%	12.34%	18.41%	0.021
Mesoamerica	All	Omnivore	879	10.35%	12.37%	8.34%	18.41%	0.021
Mesoamerica	All	Predator	1697	12.20%	13.76%	10.64%	18.41%	0.021
Mesoamerica	Birds	Herbivore	265	10.94%	14.70%	7.18%	13.68%	0.001
Mesoamerica	Birds	Omnivore	639	4.07%	5.60%	2.54%	13.68%	0.001
Mesoamerica	Birds	Predator	693	7.22%	9.14%	5.29%	13.68%	0.001
Mesoamerica	Mammals	Herbivore	211	18.01%	23.19%	12.82%	25.10%	0.427

Mesoamerica	Mammals	Omnivore	182	21.43%	27.39%	15.47%	25.10%	0.427
Mesoamerica	Mammals	Predator	214	16.36%	21.31%	11.40%	25.10%	0.427
Mesoamerica	Reptiles	Herbivore	20	50.00%	71.91%	28.09%	21.40%	< 0.001
Mesoamerica	Reptiles	Omnivore	58	44.83%	57.63%	32.03%	21.40%	< 0.001
Mesoamerica	Reptiles	Predator	790	15.44%	17.96%	12.92%	21.40%	< 0.001
North Africa	All	Herbivore	98	23.47%	31.86%	15.08%	18.41%	< 0.001
North Africa	All	Omnivore	311	6.75%	9.54%	3.96%	18.41%	< 0.001
North Africa	All	Predator	503	10.74%	13.44%	8.03%	18.41%	< 0.001
North Africa	Birds	Herbivore	53	7.55%	14.66%	0.44%	13.68%	0.347
North Africa	Birds	Omnivore	248	4.84%	7.51%	2.17%	13.68%	0.347
North Africa	Birds	Predator	294	7.82%	10.89%	4.75%	13.68%	0.347
North Africa	Mammals	Herbivore	35	40.00%	56.23%	23.77%	25.10%	< 0.001
North Africa	Mammals	Omnivore	47	6.38%	13.37%	0.00%	25.10%	< 0.001
North Africa	Mammals	Predator	106	15.09%	21.91%	8.28%	25.10%	< 0.001
North Africa	Reptiles	Herbivore	10	50.00%	80.99%	19.01%	21.40%	0.010
North Africa	Reptiles	Omnivore	16	37.50%	61.22%	13.78%	21.40%	0.010
North Africa	Reptiles	Predator	103	14.56%	21.38%	7.75%	21.40%	0.010
North America	All	Herbivore	319	8.78%	11.88%	5.67%	18.41%	0.318
North America	All	Omnivore	605	10.58%	13.03%	8.13%	18.41%	0.318
North America	All	Predator	902	11.75%	13.85%	9.65%	18.41%	0.318
North America	Birds	Herbivore	132	6.82%	11.12%	2.52%	13.68%	0.035
North America	Birds	Omnivore	448	9.15%	11.82%	6.48%	13.68%	0.035
North America	Birds	Predator	448	13.39%	16.55%	10.24%	13.68%	0.035
North America	Mammals	Herbivore	175	8.57%	12.72%	4.42%	25.10%	0.455
North America	Mammals	Omnivore	111	9.01%	14.34%	3.68%	25.10%	0.455
North America	Mammals	Predator	160	12.50%	17.62%	7.38%	25.10%	0.455
North America	Reptiles	Herbivore	12	33.33%	60.01%	6.66%	21.40%	< 0.001
North America	Reptiles	Omnivore	46	28.26%	41.27%	15.25%	21.40%	< 0.001
North America	Reptiles	Predator	294	8.84%	12.09%	5.60%	21.40%	< 0.001
North Asia	All	Herbivore	180	11.11%	15.70%	6.52%	18.41%	0.009

North Asia	All	Omnivore	373	6.43%	8.92%	3.94%	18.41%	0.009
North Asia	All	Predator	548	12.41%	15.17%	9.65%	18.41%	0.009
North Asia	Birds	Herbivore	68	7.35%	13.56%	1.15%	13.68%	0.059
North Asia	Birds	Omnivore	309	6.15%	8.83%	3.47%	13.68%	0.059
North Asia	Birds	Predator	345	11.30%	14.65%	7.96%	13.68%	0.059
North Asia	Mammals	Herbivore	110	11.82%	17.85%	5.79%	25.10%	0.428
North Asia	Mammals	Omnivore	61	8.20%	15.08%	1.31%	25.10%	0.428
North Asia	Mammals	Predator	145	14.48%	20.21%	8.75%	25.10%	0.428
North Asia	Reptiles	Herbivore	2	100.00%	100.00%	99.99%	21.40%	0.014
North Asia	Reptiles	Omnivore	3	0.00%	0.01%	0%	21.40%	0.014
North Asia	Reptiles	Predator	58	13.79%	22.67%	4.92%	21.40%	0.014
Oceania	All	Herbivore	538	23.42%	27.00%	19.84%	18.41%	< 0.001
Oceania	All	Omnivore	964	14.42%	16.64%	12.20%	18.41%	< 0.001
Oceania	All	Predator	2198	14.97%	16.46%	13.48%	18.41%	< 0.001
Oceania	Birds	Herbivore	299	14.38%	18.36%	10.40%	13.68%	< 0.001
Oceania	Birds	Omnivore	697	9.61%	11.80%	7.42%	13.68%	< 0.001
Oceania	Birds	Predator	818	17.85%	20.47%	15.22%	13.68%	< 0.001
Oceania	Mammals	Herbivore	226	34.07%	40.25%	27.89%	25.10%	< 0.001
Oceania	Mammals	Omnivore	98	21.43%	29.55%	13.30%	25.10%	< 0.001
Oceania	Mammals	Predator	236	16.53%	21.26%	11.79%	25.10%	< 0.001
Oceania	Reptiles	Herbivore	13	46.15%	73.25%	19.05%	21.40%	< 0.001
Oceania	Reptiles	Omnivore	169	30.18%	37.10%	23.26%	21.40%	< 0.001
Oceania	Reptiles	Predator	1144	12.59%	14.51%	10.67%	21.40%	< 0.001
South America	All	Herbivore	1170	19.83%	22.11%	17.54%	18.41%	< 0.001
South America	All	Omnivore	1707	12.83%	14.42%	11.24%	18.41%	< 0.001
South America	All	Predator	3030	13.17%	14.37%	11.96%	18.41%	< 0.001
South America	Birds	Herbivore	719	17.25%	20.01%	14.48%	13.68%	< 0.001
South America	Birds	Omnivore	1106	10.13%	11.90%	8.35%	13.68%	< 0.001
South America	Birds	Predator	1787	12.14%	13.66%	10.63%	13.68%	< 0.001
South America	Mammals	Herbivore	371	20.75%	24.88%	16.63%	25.10%	0.292

South America	Mammals	Omnivore	459	19.39%	23.01%	15.77%	25.10%	0.292
South America	Mammals	Predator	258	15.89%	20.35%	11.43%	25.10%	0.292
South America	Reptiles	Herbivore	80	38.75%	49.43%	28.07%	21.40%	< 0.001
South America	Reptiles	Omnivore	142	12.68%	18.15%	7.20%	21.40%	< 0.001
South America	Reptiles	Predator	985	14.31%	16.50%	12.13%	21.40%	< 0.001
South and Southeast Asia	All	Herbivore	934	30.09%	33.03%	27.14%	18.41%	< 0.001
South and Southeast Asia	All	Omnivore	1640	15.49%	17.24%	13.74%	18.41%	< 0.001
South and Southeast Asia	All	Predator	3003	14.85%	16.12%	13.58%	18.41%	< 0.001
South and Southeast Asia	Birds	Herbivore	479	14.61%	17.78%	11.45%	13.68%	0.099
South and Southeast Asia	Birds	Omnivore	1266	10.82%	12.53%	9.11%	13.68%	0.099
South and Southeast Asia	Birds	Predator	1453	12.04%	13.72%	10.37%	13.68%	0.099
South and Southeast Asia	Mammals	Herbivore	433	44.34%	49.02%	39.66%	25.10%	< 0.001
South and Southeast Asia	Mammals	Omnivore	288	26.39%	31.48%	21.30%	25.10%	< 0.001
South and Southeast Asia	Mammals	Predator	431	20.19%	23.98%	16.40%	25.10%	< 0.001
South and Southeast Asia	Reptiles	Herbivore	22	86.36%	100.00%	72.03%	21.40%	< 0.001
South and Southeast Asia	Reptiles	Omnivore	86	47.67%	58.23%	37.12%	21.40%	< 0.001
South and Southeast Asia	Reptiles	Predator	1119	16.44%	18.62%	14.27%	21.40%	< 0.001
Sub-Saharan Africa	All	Herbivore	718	27.16%	30.41%	23.91%	18.41%	< 0.001
Sub-Saharan Africa	All	Omnivore	1374	13.17%	14.96%	11.38%	18.41%	< 0.001
Sub-Saharan Africa	All	Predator	2554	18.29%	19.78%	16.79%	18.41%	< 0.001
Sub-Saharan Africa	Birds	Herbivore	255	8.63%	12.07%	5.18%	13.68%	0.007
Sub-Saharan Africa	Birds	Omnivore	1001	9.19%	10.98%	7.40%	13.68%	0.007
Sub-Saharan Africa	Birds	Predator	1203	13.05%	14.95%	11.15%	13.68%	0.007
Sub-Saharan Africa	Mammals	Herbivore	442	36.65%	41.14%	32.16%	25.10%	< 0.001
Sub-Saharan Africa	Mammals	Omnivore	271	19.19%	23.88%	14.50%	25.10%	< 0.001
Sub-Saharan Africa	Mammals	Predator	509	20.63%	24.14%	17.11%	25.10%	< 0.001
Sub-Saharan Africa	Reptiles	Herbivore	21	52.38%	73.74%	31.02%	21.40%	0.002
Sub-Saharan Africa	Reptiles	Omnivore	102	36.27%	45.61%	26.94%	21.40%	0.002
Sub-Saharan Africa	Reptiles	Predator	842	24.35%	27.25%	21.45%	21.40%	0.002
West and Central Asia	All	Herbivore	289	14.88%	18.98%	10.78%	18.41%	< 0.001

West and Central Asia	All	Omnivore	630	6.67%	8.61%	4.72%	18.41%	< 0.001
West and Central Asia	All	Predator	1009	11.10%	13.04%	9.16%	18.41%	< 0.001
West and Central Asia	Birds	Herbivore	126	5.56%	9.56%	1.56%	13.68%	0.095
West and Central Asia	Birds	Omnivore	466	4.72%	6.65%	2.80%	13.68%	0.095
West and Central Asia	Birds	Predator	495	8.08%	10.48%	5.68%	13.68%	0.095
West and Central Asia	Mammals	Herbivore	148	19.59%	25.99%	13.20%	25.10%	0.009
West and Central Asia	Mammals	Omnivore	127	7.09%	11.55%	2.62%	25.10%	0.009
West and Central Asia	Mammals	Predator	183	14.21%	19.27%	9.15%	25.10%	0.009
West and Central Asia	Reptiles	Herbivore	15	46.67%	71.91%	21.42%	21.40%	0.001
West and Central Asia	Reptiles	Omnivore	37	29.73%	44.46%	15.00%	21.40%	0.001
West and Central Asia	Reptiles	Predator	331	13.90%	17.62%	10.17%	21.40%	0.001

Supplementary Table 3: Summary statistics for trophic groups for all species combined (All), mammals, reptiles, and birds across terrestrial and aquatic habitats. Mean proportion is the proportion listed as threatened (± 95% Confidence Intervals) for each habitat. GLM p-value represents the results from the binomial GLM comparing trophic groups.

Habitat type	Taxonomic class	Trophic group	Sample size	Mean proportion	Upper CI	Lower CI	Background fraction	GLM p-value
Caves	All	Herbivore	77	24.68%	34.30%	15.05%	18.41%	0.700
Caves	All	Omnivore	57	19.30%	29.54%	9.05%	18.41%	0.700
Caves	All	Predator	472	20.76%	24.42%	17.10%	18.41%	0.700
Caves	Birds	Herbivore	11	9.09%	26.08%	0.00%	13.68%	0.769
Caves	Birds	Omnivore	1	0.00%	0.03%	0.00%	13.68%	0.769
Caves	Birds	Predator	34	14.71%	26.61%	2.80%	13.68%	0.769
Caves	Mammals	Herbivore	64	25.00%	35.61%	14.39%	25.10%	0.383
Caves	Mammals	Omnivore	55	20.00%	30.57%	9.43%	25.10%	0.383
Caves	Mammals	Predator	337	17.51%	21.56%	13.45%	25.10%	0.383
Caves	Reptiles	Herbivore	2	100.00%	100.00%	99.98%	21.40%	0.077
Caves	Reptiles	Omnivore	1	0.00%	0.03%	0.00%	21.40%	0.077
Caves	Reptiles	Predator	101	33.66%	42.88%	24.45%	21.40%	0.077
Desert	All	Herbivore	206	19.42%	24.82%	14.02%	18.41%	0.000
Desert	All	Omnivore	304	8.88%	12.08%	5.68%	18.41%	0.000
Desert	All	Predator	690	8.70%	10.80%	6.59%	18.41%	0.000
Desert	Birds	Herbivore	42	9.52%	18.40%	0.65%	13.68%	0.378
Desert	Birds	Omnivore	84	4.76%	9.32%	0.21%	13.68%	0.378
Desert	Birds	Predator	113	9.73%	15.20%	4.27%	13.68%	0.378
Desert	Mammals	Herbivore	150	19.33%	25.65%	13.01%	25.10%	0.038
Desert	Mammals	Omnivore	144	12.50%	17.90%	7.10%	25.10%	0.038
Desert	Mammals	Predator	124	8.87%	13.88%	3.87%	25.10%	0.038
Desert	Reptiles	Herbivore	14	50.00%	76.19%	23.81%	21.40%	0.000
Desert	Reptiles	Omnivore	76	6.58%	12.15%	1.01%	21.40%	0.000
Desert	Reptiles	Predator	453	8.39%	10.94%	5.84%	21.40%	0.000
Forest	All	Herbivore	2892	27.39%	29.01%	25.76%	18.41%	0.000

Forest	All	Omnivore	4524	15.38%	16.44%	14.33%	18.41%	0.000
Forest	All	Predator	8805	17.40%	18.19%	16.61%	18.41%	0.000
Forest	Birds	Herbivore	1499	18.55%	20.51%	16.58%	13.68%	0.000
Forest	Birds	Omnivore	3215	11.38%	12.48%	10.29%	13.68%	0.000
Forest	Birds	Predator	3752	13.94%	15.05%	12.83%	13.68%	0.000
Forest	Mammals	Herbivore	1340	35.45%	38.01%	32.89%	25.10%	0.000
Forest	Mammals	Omnivore	1036	23.75%	26.34%	21.15%	25.10%	0.000
Forest	Mammals	Predator	1215	19.84%	22.08%	17.59%	25.10%	0.000
Forest	Reptiles	Herbivore	53	73.58%	85.45%	61.72%	21.40%	0.000
Forest	Reptiles	Omnivore	273	30.77%	36.24%	25.29%	21.40%	0.000
Forest	Reptiles	Predator	3838	20.01%	21.28%	18.74%	21.40%	0.000
Grassland	All	Herbivore	924	16.45%	18.84%	14.06%	18.41%	0.005
Grassland	All	Omnivore	1421	12.39%	14.10%	10.67%	18.41%	0.005
Grassland	All	Predator	2254	12.29%	13.64%	10.93%	18.41%	0.005
Grassland	Birds	Herbivore	350	9.14%	12.16%	6.12%	13.68%	0.290
Grassland	Birds	Omnivore	910	10.66%	12.66%	8.65%	13.68%	0.290
Grassland	Birds	Predator	936	12.07%	14.16%	9.99%	13.68%	0.290
Grassland	Mammals	Herbivore	543	20.44%	23.83%	17.05%	25.10%	0.021
Grassland	Mammals	Omnivore	379	13.46%	16.89%	10.02%	25.10%	0.021
Grassland	Mammals	Predator	348	17.53%	21.52%	13.53%	25.10%	0.021
Grassland	Reptiles	Herbivore	31	29.03%	45.01%	13.05%	21.40%	0.000
Grassland	Reptiles	Omnivore	132	21.21%	28.19%	14.24%	21.40%	0.000
Grassland	Reptiles	Predator	970	10.62%	12.56%	8.68%	21.40%	0.000
Rocky	All	Herbivore	328	20.12%	24.46%	15.78%	18.41%	0.000
Rocky	All	Omnivore	412	8.74%	11.46%	6.01%	18.41%	0.000
Rocky	All	Predator	1218	15.85%	17.90%	13.79%	18.41%	0.000
Rocky	Birds	Herbivore	66	3.03%	7.17%	0.00%	13.68%	0.010
Rocky	Birds	Omnivore	194	5.67%	8.92%	2.42%	13.68%	0.010
Rocky	Birds	Predator	277	11.91%	15.73%	8.10%	13.68%	0.010
Rocky	Mammals	Herbivore	209	24.40%	30.22%	18.58%	25.10%	0.000

Rocky	Mammals	Omnivore	104	5.77%	10.25%	1.29%	25.10%	0.000
Rocky	Mammals	Predator	129	11.63%	17.16%	6.10%	25.10%	0.000
Rocky	Reptiles	Herbivore	53	24.53%	36.11%	12.94%	21.40%	0.459
Rocky	Reptiles	Omnivore	114	16.67%	23.51%	9.83%	21.40%	0.459
Rocky	Reptiles	Predator	812	17.86%	20.49%	15.22%	21.40%	0.459
Savanna	All	Herbivore	617	13.61%	16.32%	10.91%	18.41%	0.000
Savanna	All	Omnivore	1116	5.56%	6.90%	4.21%	18.41%	0.000
Savanna	All	Predator	1871	5.88%	6.95%	4.81%	18.41%	0.000
Savanna	Birds	Herbivore	341	9.38%	12.48%	6.29%	13.68%	0.006
Savanna	Birds	Omnivore	848	4.36%	5.74%	2.99%	13.68%	0.006
Savanna	Birds	Predator	859	6.05%	7.65%	4.46%	13.68%	0.006
Savanna	Mammals	Herbivore	269	19.33%	24.05%	14.61%	25.10%	0.001
Savanna	Mammals	Omnivore	202	10.40%	14.61%	6.19%	25.10%	0.001
Savanna	Mammals	Predator	311	9.00%	12.18%	5.82%	25.10%	0.001
Savanna	Reptiles	Herbivore	7	0.00%	0.01%	0.00%	21.40%	0.594
Savanna	Reptiles	Omnivore	66	6.06%	11.82%	0.30%	21.40%	0.594
Savanna	Reptiles	Predator	701	4.28%	5.78%	2.78%	21.40%	0.594
Shrubland	All	Herbivore	1367	17.70%	19.73%	15.68%	18.41%	0.000
Shrubland	All	Omnivore	2673	10.25%	11.40%	9.10%	18.41%	0.000
Shrubland	All	Predator	3857	11.46%	12.46%	10.45%	18.41%	0.000
Shrubland	Birds	Herbivore	742	10.65%	12.87%	8.43%	13.68%	0.184
Shrubland	Birds	Omnivore	1964	8.40%	9.63%	7.17%	13.68%	0.184
Shrubland	Birds	Predator	1758	9.39%	10.75%	8.02%	13.68%	0.184
Shrubland	Mammals	Herbivore	555	21.62%	25.05%	18.20%	25.10%	0.000
Shrubland	Mammals	Omnivore	477	12.16%	15.09%	9.23%	25.10%	0.000
Shrubland	Mammals	Predator	434	14.98%	18.33%	11.62%	25.10%	0.000
Shrubland	Reptiles	Herbivore	70	61.43%	72.83%	50.03%	21.40%	0.000
Shrubland	Reptiles	Omnivore	232	21.98%	27.31%	16.65%	21.40%	0.000
Shrubland	Reptiles	Predator	1665	12.73%	14.33%	11.13%	21.40%	0.000
Wetland	All	Herbivore	353	18.41%	22.46%	14.37%	18.41%	0.068

Wetland	All	Omnivore	924	13.31%	15.50%	11.12%	18.41%	0.068
Wetland	All	Predator	1866	14.04%	15.62%	12.46%	18.41%	0.068
Wetland	Birds	Herbivore	196	7.14%	10.75%	3.54%	13.68%	0.119
Wetland	Birds	Omnivore	755	10.60%	12.79%	8.40%	13.68%	0.119
Wetland	Birds	Predator	1203	11.80%	13.63%	9.98%	13.68%	0.119
Wetland	Mammals	Herbivore	144	29.17%	36.59%	21.74%	25.10%	0.008
Wetland	Mammals	Omnivore	101	12.87%	19.40%	6.34%	25.10%	0.008
Wetland	Mammals	Predator	193	22.28%	28.15%	16.41%	25.10%	0.008
Wetland	Reptiles	Herbivore	13	69.23%	94.32%	44.14%	21.40%	0.000
Wetland	Reptiles	Omnivore	68	44.12%	55.92%	32.32%	21.40%	0.000
Wetland	Reptiles	Predator	470	16.38%	19.73%	13.04%	21.40%	0.000
Marine Coastal	All	Herbivore	60	40.00%	52.40%	27.60%	18.41%	0.006
Marine Coastal	All	Omnivore	168	26.79%	33.48%	20.09%	18.41%	0.006
Marine Coastal	All	Predator	642	21.65%	24.84%	18.47%	18.41%	0.006
Marine Coastal	Birds	Herbivore	28	14.29%	27.25%	1.32%	13.68%	0.724
Marine Coastal	Birds	Omnivore	108	18.52%	25.84%	11.19%	13.68%	0.724
Marine Coastal	Birds	Predator	375	20.00%	24.05%	15.95%	13.68%	0.724
Marine Coastal	Mammals	Herbivore	19	63.16%	84.85%	41.47%	25.10%	0.023
Marine Coastal	Mammals	Omnivore	19	21.05%	39.38%	2.72%	25.10%	0.023
Marine Coastal	Mammals	Predator	64	35.94%	47.69%	24.18%	25.10%	0.023
Marine Coastal	Reptiles	Herbivore	13	61.54%	87.99%	35.09%	21.40%	0.000
Marine Coastal	Reptiles	Omnivore	41	51.22%	66.52%	35.92%	21.40%	0.000
Marine Coastal	Reptiles	Predator	203	20.20%	25.72%	14.67%	21.40%	0.000
Marine Intertidal	All	Herbivore	43	34.88%	49.13%	20.64%	18.41%	0.083
Marine Intertidal	All	Omnivore	169	21.30%	27.47%	15.13%	18.41%	0.083
Marine Intertidal	All	Predator	499	19.64%	23.12%	16.15%	18.41%	0.083
Marine Intertidal	Birds	Herbivore	23	8.70%	20.20%	0.00%	13.68%	0.276
Marine Intertidal	Birds	Omnivore	129	12.40%	18.00%	6.70%	13.68%	0.276
Marine Intertidal	Birds	Predator	358	17.00%	20.90%	13.10%	13.68%	0.276
Marine Intertidal	Mammals	Herbivore	12	50.00%	78.30%	21.70%	25.10%	0.627

Marine Intertidal	Mammals	Omnivore	10	30.00%	58.40%	1.60%	25.10%	0.627
Marine Intertidal	Mammals	Predator	46	39.10%	53.20%	25.00%	25.10%	0.627
Marine Intertidal	Reptiles	Herbivore	8	87.50%	100.00%	64.60%	21.40%	0.000
Marine Intertidal	Reptiles	Omnivore	30	56.67%	74.50%	38.90%	21.40%	0.000
Marine Intertidal	Reptiles	Predator	95	20.00%	28.00%	12.00%	21.40%	0.000
Marine Neritic	All	Herbivore	26	38.46%	57.16%	19.76%	18.41%	0.176
Marine Neritic	All	Omnivore	70	20.00%	29.37%	10.63%	18.41%	0.176
Marine Neritic	All	Predator	610	27.21%	30.74%	23.68%	18.41%	0.176
Marine Neritic	Birds	Herbivore	15	6.67%	19.29%	0.00%	13.68%	0.005
Marine Neritic	Birds	Omnivore	63	12.70%	20.92%	4.48%	13.68%	0.005
Marine Neritic	Birds	Predator	448	27.46%	31.59%	23.32%	13.68%	0.005
Marine Neritic	Mammals	Herbivore	6	83.33%	100.00%	53.51%	25.10%	0.017
Marine Neritic	Mammals	Omnivore	1	100.00%	100.00%	99.95%	25.10%	0.017
Marine Neritic	Mammals	Predator	100	33.00%	42.22%	23.78%	25.10%	0.017
Marine Neritic	Reptiles	Herbivore	5	80.00%	100.00%	44.94%	21.40%	0.000
Marine Neritic	Reptiles	Omnivore	6	83.33%	100.00%	53.51%	21.40%	0.000
Marine Neritic	Reptiles	Predator	62	16.13%	25.28%	6.97%	21.40%	0.000
Marine Oceanic	All	Herbivore	3	100.00%	100.03%	99.97%	18.41%	0.047
Marine Oceanic	All	Omnivore	10	40.00%	70.36%	9.64%	18.41%	0.047
Marine Oceanic	All	Predator	311	36.01%	41.35%	30.68%	18.41%	0.047
Marine Oceanic	Birds	Omnivore	7	14.30%	40.20%	0.00%	13.68%	0.151
Marine Oceanic	Birds	Predator	224	39.30%	45.70%	32.90%	13.68%	0.151
Marine Oceanic	Mammals	Herbivore	1	100.00%	100.00%	100.00%	25.10%	0.104
Marine Oceanic	Mammals	Predator	84	26.20%	35.60%	16.80%	25.10%	0.104
Marine Oceanic	Reptiles	Herbivore	2	100.00%	100.00%	100.00%	21.40%	0.331
Marine Oceanic	Reptiles	Omnivore	3	100.00%	100.00%	100.00%	21.40%	0.331
Marine Oceanic	Reptiles	Predator	3	67.00%	100.00%	13.00%	21.40%	0.331

Table S4: Summary statistics for generalized linear models (GLM) and post hoc Tukey's analyses examining trophic group differences in the proportion of species listed as extinct. Mammals, Birds, Reptiles, and All species combined represent contemporary extinction in the last 500 years. LR = likelihood ratio test; DF= degrees of freedom

	DF	**LR-Chi^2**	**P-value**
GLM results			
All species combined	2	76.004	<0.001
Pleistocene Mammals	2	239.77	<0.001
Mammals	2	12.214	0.002
Birds	2	19.287	<0.001
Reptiles	2	30.275	<0.001
Tukey's results			
All species combined			
Herbivores: Omnivores			<0.001
Herbivores: Predators			<0.001
Predators: Omnivores			<0.001
Pleistocene Mammals			
Herbivores: Omnivores			<0.001
Herbivores: Predators			<0.001
Predators: Omnivores			0.363
Mammals			
Herbivores: Omnivores			0.076
Herbivores: Predators			0.004
Predators: Omnivores			0.581
Birds			
Herbivores: Omnivores			<0.001
Herbivores: Predators			<0.001
Predators: Omnivores			0.892
Reptiles			
Herbivores: Omnivores			0.038
Herbivores: Predators			<0.001
Predators: Omnivores			0.003

Table S5: Summary statistics for phylogenetic generalized linear models examining the independent and interactive effects of trophic group (herbivore, omnivore, or predator) and body mass on extinction risk in mammals, birds, and reptiles. All coefficients are the averages of models fit across 1000 phylogenies; the exception is α (which measures the strength of phylogenetic signal; (*36*)), whose 'Estimate' is the mean across the phylogenies and the 'SE' the standard error of that mean .

	Estimate	**SE**	**z-score**	**P-value**
Mammals				
(Intercept)	-0.969	0.194	-5.488	<0.001
Trophic Level_Omnivore	-0.268	0.116	-2.199	0.550
Trophic Level_Predator	-1.356	0.156	-8.538	<0.001
Log Body Mass	0.248	0.053	4.982	<0.001
α	0.081	<0.001		
Birds				
(Intercept)	-2.864	0.213	-13.486	<0.001
Trophic Level_Omnivore	-0.600	0.275	-2.177	0.057
Trophic Level_Predator	-0.008	0.253	-0.028	0.541
Log Body Mass	0.676	0.095	7.122	<0.001
Trophic Level_Omnivore:Log Body Mass	0.107	0.129	0.823	0.412
Trophic Level_Predator:Log Body Mass	-0.087	0.115	-0.766	0.430
α	0.500	<0.001		
Reptiles				
(Intercept)	-2.968	1.342	-2.213	0.027
Trophic Level_Omnivore	1.488	1.415	1.054	0.294
Trophic Level_Predator	1.715	1.348	1.274	0.204
Log Body Mass	1.521	0.567	2.681	0.007
Trophic Level_Omnivore:Log Body Mass	-1.206	0.644	-1.874	0.063
Trophic Level_Predator:Log Body Mass	-1.842	0.578	-3.192	0.002
α	0.091	<0.001		

Table S6: Summary statistics for phylogenetic generalized linear models examining the independent and interactive effects of trophic group (herbivore, omnivore, or predator) and body mass on the proportion of threatened mammals impacted by different anthropogenic drivers, and the summed number of drivers of extinction for each species. All coefficients are the averages of models fit across 1000 phylogenies; the exception is α or λ (which measures the strength of phylogenetic signal; (*36*)), whose 'Estimate' is the mean across the phylogenies and the 'SE' the standard error of that mean. The logistic models' (of individual threats) terms are tested using z-tests, while the summed threat model terms use t-tests.

	Estimate	**SE**	**z/t-statistic**	**p-value**
Resource Use				
(Intercept)	-2.268	0.894	-2.536	0.012
Trophic Level_Omnivore	0.142	0.659	0.215	0.828
Trophic Level_Predator	-0.454	0.705	-0.646	0.520
Log Body Mass	0.507	0.242	2.100	0.037
α	0.023	<0.001		
Climate Change				
(Intercept)	-3.062	0.293	-10.466	0.000
Trophic Level_Omnivore	-0.468	0.304	-1.539	0.166
Trophic Level_Predator	0.446	0.238	1.851	0.132
Log Body Mass	0.408	0.070	5.805	0.002
α	0.208	<0.001		
Habitat alteration				
(Intercept)	-0.083	0.419	-0.175	0.771
Trophic Level_Omnivore	1.743	0.741	2.357	0.024
Trophic Level_Predator	2.663	0.562	4.747	<0.001
Log Body Mass	0.571	0.145	3.923	0.002
Trophic Level_Omnivore:Log Body Mass	-0.375	0.288	-1.348	0.226
Trophic Level_Predator:Log Body Mass	-0.695	0.196	-3.556	0.001
α	0.152	<0.001		
Invasive species				
(Intercept)	-2.254	0.508	-4.437	<0.001
Trophic Level_Omnivore	1.987	0.552	3.611	0.001
Trophic Level_Predator	0.394	0.569	0.692	0.497
Log Body Mass	0.393	0.123	3.208	0.008
Trophic Level_Omnivore:Log Body Mass	-0.563	0.189	-2.985	0.005
Trophic Level_Predator:Log Body Mass	0.025	0.165	0.150	0.853
α	0.030	<0.001		
Pollution				
(Intercept)	-4.399	0.564	-8.067	<0.001
Trophic Level_Omnivore	1.135	0.455	2.563	0.026
Trophic Level_Predator	2.093	0.454	4.715	0.002
Log Body Mass	0.317	0.104	3.224	0.032
α	0.056	<0.001		
Summed				
(Intercept)	-0.013	0.066	-0.200	0.841
Trophic Level_Omnivore	0.096	0.018	5.366	<0.001
Trophic Level_Predator	-0.031	0.022	-1.407	0.161
Log Body Mass	-0.017	0.024	-0.718	0.475
λ	0.596	<0.001		

Table S7: Summary statistics for phylogenetic generalized linear models examining the independent and interactive effects of trophic group (herbivore, omnivore, or predator) and body mass on the proportion of threatened birds impacted by independent and the sum of anthropogenic drivers of extinction. All coefficients are the averages of models fit across 1000 phylogenies; the exception is α or λ (which measure the strength of phylogenetic signal; (*36*)), whose 'Estimate' is the mean across the phylogenies and the 'SE' the standard error of that mean. The logistic models' (of individual threats) terms are tested using z-tests, while the summed threat model terms use t-tests.

	Estimate	**SE**	**z/t-statistic**	**p-value**
Resource Use				
(Intercept)	-0.630	0.283	-2.232	0.038
Trophic Level_Omnivore	-0.469	0.233	-2.013	0.075
Trophic Level_Predator	-0.288	0.227	-1.262	0.252
Log Body Mass	1.120	0.121	9.249	<0.001
α	0.182	0.002		
Climate Change				
(Intercept)	-1.207	0.281	-4.306	0.011
Trophic Level_Omnivore	0.208	0.207	1.010	0.375
Trophic Level_Predator	0.050	0.206	0.288	0.276
Log Body Mass	0.239	0.101	2.312	0.142
α	0.112	0.001		
Habitat alteration				
(Intercept)	3.976	1.174	3.395	0.001
Trophic Level_Omnivore	-2.969	1.249	-2.389	0.021
Trophic Level_Predator	-1.428	1.283	-1.114	0.270
Log Body Mass	-0.537	0.467	-1.167	0.265
Trophic Level_Omnivore:Log Body Mass	1.038	0.526	1.985	0.079
Trophic Level_Predator:Log Body Mass	0.400	0.522	0.778	0.451
α	0.063	<0.001		
Invasive species				
(Intercept)	-0.666	0.622	-1.072	0.287
Trophic Level_Omnivore	1.026	0.655	1.566	0.120
Trophic Level_Predator	-0.887	0.679	-1.307	0.194
Log Body Mass	-0.087	0.260	-0.331	0.732
Trophic Level_Omnivore:Log Body Mass	-0.271	0.291	-0.934	0.358
Trophic Level_Predator:Log Body Mass	0.640	0.294	2.175	0.032
α	0.041	<0.001		
Pollution				
(Intercept)	-1.808	0.781	-2.317	0.023
Trophic Level_Omnivore	-0.466	0.898	-0.519	0.605
Trophic Level_Predator	-2.350	0.892	-2.637	0.009
Log Body Mass	-0.168	0.346	-0.484	0.632
Trophic Level_Omnivore:Log Body Mass	0.421	0.402	1.047	0.303
Trophic Level_Predator:Log Body Mass	1.431	0.383	3.741	<0.001
α	0.069	<0.001		
Summed				
(Intercept)	-0.085	0.086	-1.007	0.318
Trophic Level_Omnivore	0.058	0.042	1.394	0.164
Trophic Level_Predator	0.076	0.046	1.630	0.104
Log Body Mass	0.084	0.021	4.042	<0.001
Trophic Level_Omnivore:Log Body Mass	-0.005	0.021	-0.229	0.819
Trophic Level_Predator:Log Body Mass	0.006	0.023	0.271	0.787
λ	0.264	<0.001		

Table S8: Summary statistics for phylogenetic generalized linear models examining the independent and interactive effects of trophic group (herbivore, omnivore, or predator) and body mass on the proportion of threatened reptiles impacted by different anthropogenic drivers. *A*ll coefficients are the averages of models fit across 1000 phylogenies; the exception is α or λ (which measures the strength of phylogenetic signal; (*36*)), whose 'Estimate' is the mean across the phylogenies and the 'SE' the standard error of that mean. The logistic models' (of individual threats) terms are tested using z-tests, while the summed threat model terms use t-tests.

	Estimate	**SE**	**z/t-statistic**	**p-value**
Resource Use				
(Intercept)	-0.246	0.712	-0.355	0.708
Trophic Level_Omnivore	0.641	0.584	1.087	0.293
Trophic Level_Predator	0.671	0.604	1.098	0.298
Log Body Mass	-0.152	0.186	-0.775	0.189
α	0.028	<0.001		
Climate Change				
(Intercept)	-2.268	0.894	-2.536	0.012
Trophic Level_Omnivore	0.142	0.659	0.215	0.828
Trophic Level_Predator	-0.454	0.705	-0.646	0.520
Log Body Mass	0.507	0.242	2.100	0.037
α	0.023	<0.001		
Habitat alteration				
(Intercept)	2.150	0.815	2.638	0.009
Trophic Level_Omnivore	-0.056	0.644	-0.083	0.893
Trophic Level_Predator	0.262	0.660	0.400	0.692
Log Body Mass	-0.562	0.216	-2.605	0.009
α	0.034	<0.001		
Invasive species				
(Intercept)	0.890	0.773	1.147	0.259
Trophic Level_Omnivore	-1.779	0.655	-2.717	0.008
Trophic Level_Predator	-1.902	0.652	-2.918	0.005
Log Body Mass	-0.002	0.209	-0.007	0.872
α	0.027	<0.001		
Pollution				
(Intercept)	-2.954	1.140	-2.591	0.010
Trophic Level_Omnivore	0.914	0.969	0.944	0.350
Trophic Level_Predator	0.197	0.995	0.195	0.844
Log Body Mass	0.252	0.263	0.958	0.344
α	0.109	0.001		
Summed				
(Intercept)	-0.062	0.246	-0.251	0.802
Trophic Level_Omnivore	0.090	0.210	0.426	0.670
Trophic Level_Predator	0.204	0.201	1.017	0.310
Log Body Mass	0.239	0.078	3.061	0.002
Trophic Level_Omnivore:Log Body Mass	-0.090	0.088	-1.026	0.305
Trophic Level_Predator:Log Body Mass	-0.267	0.080	-3.364	<0.001
λ	0.355	<0.001		

Table S9 Percentage of species in the data set where trophic level was identified using the different types and quality of diet data.

Data Quality	**Herbivore**	**Omnivore**	**Predator**
Quantitatively assessed diet	88%	82%	50%
Ranked or weighted presence-absence data	5%	1%	18%
Unranked presence-absence data	1%	6%	6%
Extrapolated from a former species classification quantitatively assessed	1%	1%	1%
Extrapolated from a former species classification ranked or weighted presence-absence	2%	0%	3%
Extrapolated from a former species classification unranked presence-absence data	2%	5%	1%
Extrapolated from a congener	1%	4%	18%
Extrapolated from a confamiliar	<1%	<1%	2%