

## Supplementary Material

### Reptiles as food: predation of Australian reptiles by introduced red foxes compounds and complements predation by cats

Alyson M. Stobo-Wilson<sup>A,M</sup>, Brett P. Murphy<sup>A</sup>, Sarah M. Legge<sup>B</sup>, David. G. Chapple<sup>C</sup>, Heather M. Crawford<sup>D</sup>, Stuart J. Dawson<sup>D</sup>, Chris R. Dickman<sup>E</sup>, Tim S. Doherty<sup>F</sup>, Patricia A. Fleming<sup>D</sup>, Matthew Gentle<sup>G</sup>, Thomas M. Newsome<sup>H</sup>, Russell Palmer<sup>I</sup>, Matthew Rees<sup>J</sup>, Euan Ritchie<sup>K</sup>, James Speed<sup>G</sup>, John-Michael Stuart<sup>D</sup>, Eilysh Thompson<sup>K</sup>, Jeff Turpin<sup>L</sup> and John C. Z. Woinarski<sup>A</sup>

<sup>A</sup>NESP Threatened Species Recovery Hub, Charles Darwin University, Darwin, NT 0909, Australia.

<sup>B</sup>NESP Threatened Species Recovery Hub, Centre for Biodiversity and Conservation Research, University of Queensland, St Lucia, Qld 4072, Australia.

<sup>C</sup>School of Biological Sciences, Monash University, Clayton, Vic. 3800, Australia.

<sup>D</sup>Centre for Terrestrial Ecosystem Science and Sustainability, Harry Butler Institute, Murdoch University, 90 South Street, Murdoch, WA 6150, Australia.

<sup>E</sup>NESP Threatened Species Recovery Hub, Desert Ecology Research Group, School of Life and Environmental Sciences, Heydon-Laurence Building A08, University of Sydney, Camperdown, NSW 2006, Australia.

<sup>F</sup>School of Life and Environmental Sciences, Heydon-Laurence Building A08, University of Sydney, NSW 2006, Australia.

<sup>G</sup>Pest Animal Research Centre, Invasive Plants and Animals, Biosecurity Queensland, 203 Tor Street, Toowoomba, Qld 4350, Australia.

<sup>H</sup>Global Ecology Lab, School of Life and Environmental Sciences, University of Sydney, Sydney, NSW 2006, Australia.

<sup>I</sup>Department of Biodiversity, Conservation and Attractions, Locked Bag 104, Bentley Delivery Centre, WA 6983, Australia.

<sup>J</sup>Quantitative and Applied Ecology Group, School of Biosciences, The University of Melbourne, Parkville, Vic. 3010, Australia.

<sup>K</sup>Centre for Integrative Ecology, School of Life and Environmental Sciences, Deakin University, Burwood, Vic. 3125, Australia.

<sup>L</sup>School of Environmental and Rural Science, University of New England, Armidale, NSW 2351, Australia.

<sup>M</sup>Corresponding author. Email: alyson.stobowilson@gmail.com

Table S3. Best candidate models (95% confidence model set) used to test the effects of predictor variables on records of fox consumption considering only those squamates that occur within the distributional range of foxes.  $\Delta\text{AIC}_C$  is a measure of change in the Akaike Information Criterion with correction for small sample size; Akaike  $w_i$  is the probability model  $i$  is the best model. All models excluded squamates that occur in rainforest and littoral habitats and included the offset terms for the number of ALA records for each squamate species (records were limited to the distributional range of foxes), and the number of fox-diet studies that have occurred within the distributional range of each species. For definitions of variables see Table 1.

Model	$\Delta\text{AIC}_C$	$w_i$	R <sup>2</sup>
Body mass + Arboreal + Habitat + Venomous	0.00	0.22	0.26
Body mass + Habitat + Venomous	0.72	0.15	0.25
Body mass + Arboreal + Diel + Habitat + Venomous	1.72	0.09	0.26
Body mass + Arboreal + Fossorial + Habitat + Venomous	2.05	0.08	0.26
Body mass + Diel + Habitat + Venomous	2.37	0.07	0.25
Body mass + Habitat	2.40	0.07	0.25
Body mass + Fossorial + Habitat + Venomous	2.52	0.06	0.25
Body mass + Arboreal + Habitat	3.15	0.05	0.25
Body mass + Arboreal + Diel + Fossorial + Habitat + Venomous	3.78	0.03	0.26
Body mass + Fossorial + Habitat	4.10	0.03	0.25
Body mass + Diel + Habitat	4.29	0.03	0.25
Body mass + Diel + Fossorial + Habitat + Venomous	4.38	0.02	0.26
Body mass + Arboreal + Venomous	4.55	0.02	0.23
Body mass + Arboreal + Fossorial + Habitat	5.08	0.02	0.25
Body mass + Arboreal + Diel + Habitat	5.10	0.02	0.25
Body mass + Arboreal + Diel + Venomous	5.59	0.01	0.23
Body mass + Venomous	6.11	0.01	0.22
Body mass + Diel + Fossorial + Habitat	6.14	0.01	0.25
Body mass + Arboreal + Fossorial + Venomous	6.19	0.01	0.23
Body mass + Arboreal	6.88	0.01	0.22

Table S4. Best candidate models (95% confidence model set) used to test the effects of predictor variables on records of (a) cat consumption considering only those squamates that occur within the distributional range of foxes, and (b) cat consumption considering all squamates.  $\Delta\text{AIC}_C$  is a measure of change in the Akaike Information Criterion with correction for small sample size; Akaike  $w_i$  is the probability model  $i$  is the best model. Models considering only squamates that occur within the distributional range of foxes excluded squamates that occur in littoral habitats. All models include the offset terms for the number of ALA records for each squamate species and the number of cat-diet studies that have occurred within the distributional range of each species. For definitions of variables see Table 1.

Model	$\Delta\text{AIC}_C$	$w_i$	$R^2$
<i>(a) Cat eaten (considering only squamates within fox range)</i>			
Body mass <sup>2</sup> + Body mass + Habitat	0.00	0.23	0.37
Body mass <sup>2</sup> + Body mass + Diel + Habitat	1.64	0.10	0.37
Body mass <sup>2</sup> + Body mass + Habitat + Venomous	2.00	0.08	0.37
Body mass <sup>2</sup> + Body mass + Fossorial + Habitat	2.00	0.08	0.37
Body mass <sup>2</sup> + Body mass + Arboreal + Habitat	2.07	0.08	0.37
Body mass <sup>2</sup> + Body mass +	3.06	0.05	0.35
Body mass <sup>2</sup> + Body mass + Diel + Habitat + Venomous	3.56	0.04	0.37
Body mass <sup>2</sup> + Body mass + Arboreal + Diel + Habitat	3.72	0.04	0.37
Body mass <sup>2</sup> + Body mass + Diel + Fossorial + Habitat	3.72	0.04	0.37
Body mass <sup>2</sup> + Body mass + Fossorial + Habitat + Venomous	4.01	0.03	0.37
Body mass <sup>2</sup> + Body mass + Arboreal + Habitat + Venomous	4.06	0.03	0.37
Body mass <sup>2</sup> + Body mass + Arboreal + Fossorial + Habitat	4.08	0.03	0.37
Body mass <sup>2</sup> + Body mass + Diel	4.18	0.03	0.35
Body mass <sup>2</sup> + Body mass + Arboreal	4.70	0.02	0.35
Body mass <sup>2</sup> + Body mass + Fossorial	4.89	0.02	0.35
Body mass <sup>2</sup> + Body mass + Venomous	4.91	0.02	0.35
Body mass <sup>2</sup> + Body mass + Arboreal + Diel + Habitat + Venomous	5.63	0.01	0.37
Body mass <sup>2</sup> + Body mass + Diel + Fossorial + Habitat + Venomous	5.64	0.01	0.37
Body mass <sup>2</sup> + Body mass + Arboreal + Diel + Fossorial + Habitat	5.80	0.01	0.37
Body mass <sup>2</sup> + Body mass + Arboreal + Diel	5.81	0.01	0.35
Body mass <sup>2</sup> + Body mass + Arboreal + Fossorial + Habitat + Venomous	6.09	0.01	0.37
Body mass <sup>2</sup> + Body mass + Diel + Venomous	6.15	0.01	0.35
Body mass <sup>2</sup> + Body mass + Diel + Fossorial	6.21	0.01	0.35
<i>(b) Cat eaten (all squamates)</i>			
Body mass <sup>2</sup> + Body mass + Habitat	0.00	0.27	0.39
Body mass <sup>2</sup> + Body mass + Habitat + Venomous	1.60	0.12	0.40
Body mass <sup>2</sup> + Body mass + Arboreal + Habitat	1.86	0.11	0.39
Body mass <sup>2</sup> + Body mass + Diel + Habitat	1.88	0.11	0.40
Body mass <sup>2</sup> + Body mass + Fossorial + Habitat	1.96	0.10	0.40
Body mass <sup>2</sup> + Body mass + Diel + Habitat + Venomous	3.40	0.05	0.40
Body mass <sup>2</sup> + Body mass + Arboreal + Habitat + Venomous	3.56	0.05	0.40
Body mass <sup>2</sup> + Body mass + Fossorial + Habitat + Venomous	3.58	0.04	0.40
Body mass <sup>2</sup> + Body mass + Arboreal + Diel + Habitat	3.74	0.04	0.40
Body mass <sup>2</sup> + Body mass + Arboreal + Fossorial + Habitat	3.75	0.04	0.40
Body mass <sup>2</sup> + Body mass + Diel + Fossorial + Habitat	3.91	0.04	0.40
Body mass <sup>2</sup> + Body mass + Arboreal + Diel + Habitat + Venomous	5.36	0.02	0.40
Body mass <sup>2</sup> + Body mass + Diel + Fossorial + Habitat + Venomous	5.45	0.02	0.40