

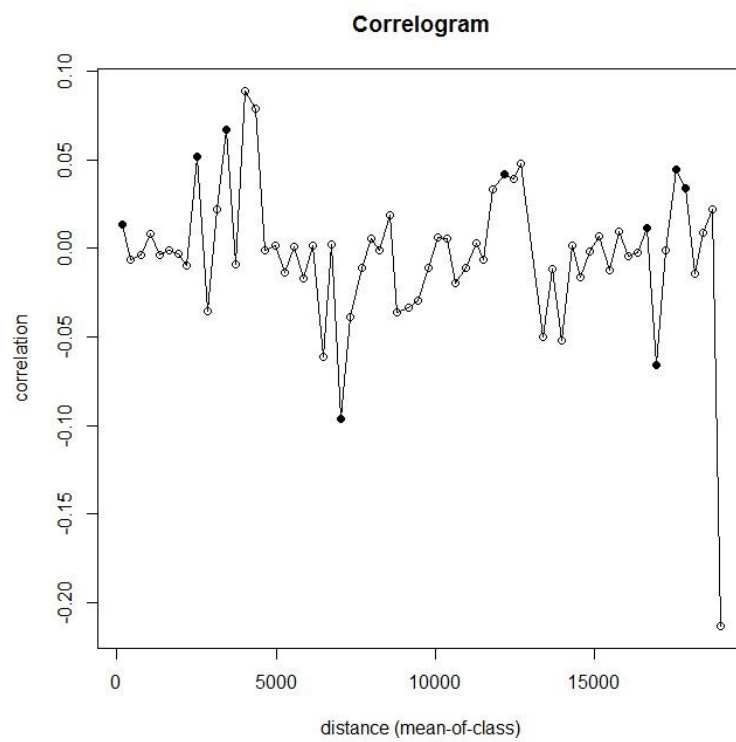
Ecography

ECOG-01593

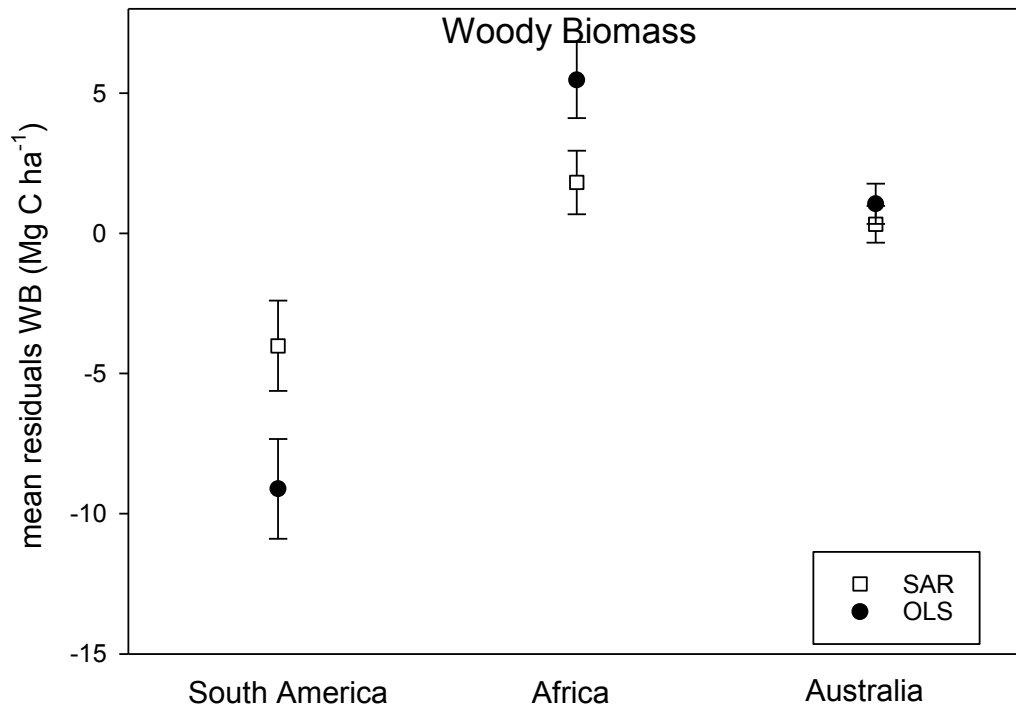
Doughty, C. E., Faurby, S. and Svenning, J.-C. 2015.
The impact of the megafauna extinctions on savanna
woody cover in South America. – Ecography doi:
10.1111/ecog.01593

Supplementary material

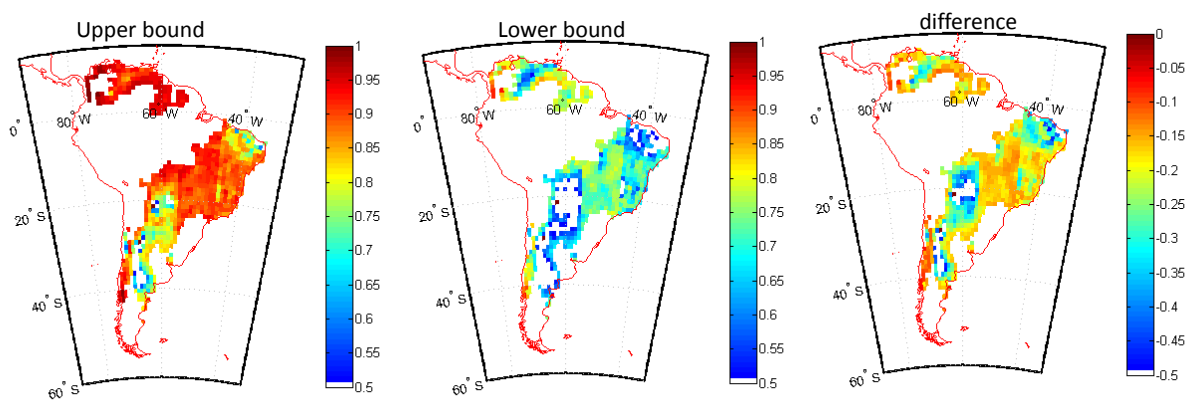
Supplemental Online Material



SOM Figure A1. Correlogram using the SAR model for 1256 plots with a neighbourhood size of 90km.



SOM Figure A2 - Residuals of modelled estimates of woody biomass averaged for South America, Africa, and Australia with animals included using an OLS regression (black circles) and a SAR analysis (open squares).

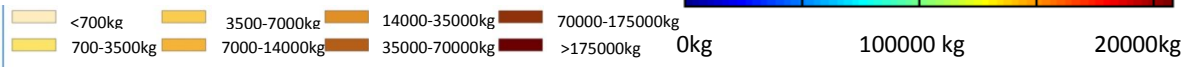
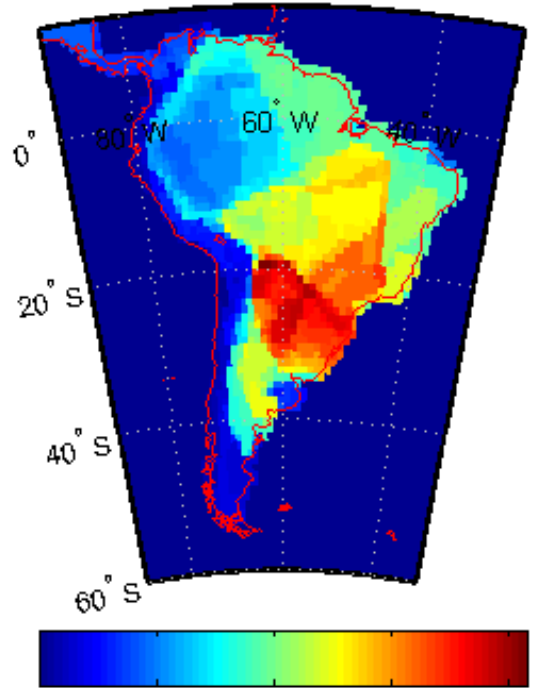


SOM Figure A3 – Results of a sensitivity study similar to figure 7 except where we vary “present world with extinct megafauna” by decreasing it by 20% of the original value (left), increasing it by 20% (center), and the difference between the two (right).

Cattle density (kgs per km²)



Extinct megafauna density (kgs per km²)



SOM Figure A4 – (left) FAO map of global cattle density in kgs per km² assuming a mean cattle weight of 700 kg for South America as compared to (right) estimated mean biomass of extinct megafauna in kgs per km² for South America.

SOM Table A1- Details on the now extinct or species with substantial range reductions (marked with *) South American megafauna used in this analysis from Faurby and Svenning (submitted) showing species, mean estimated weight, and mean estimated percent of South America covered by each species. We exclude the species *Equus ferrus* because it is a grazer.

Species	mean weight (kg)	Estimated mean percent of South America covered by each species
<i>Agalmaceros blicki</i>	60	3
<i>Antifer ultra</i>	87	14
<i>Arctotherium tarijense</i>	110	8
<i>Arctotherium wingei</i>	73	37
<i>Catonyx cuvieri</i>	159	39
<i>Cuvieronius hyodon</i>	5000	24
<i>Diabolotherium nordenskioldi</i>	69	5
<i>Doedicurus clavicaudatus</i>	1468	4
<i>Eremotherium laurillardi</i>	800	81
<i>Eutatus seguini</i>	144	12
<i>Glossotherium robustum</i>	1713	38
<i>Glyptodon clavipes</i>	2000	29
<i>Glyptodon reticulatus</i>	862	8
<i>Glyptotherium cylindricum</i>	1361	59
<i>Hemiauchenia paradoxa</i>	1000	23
<i>Hippidion devillei</i>	311	4
<i>Hippidion principale</i>	511	39
<i>Hippocamelus antisensis*</i>	69	6
<i>Hippocamelus bisulcus*</i>	70	4
<i>Holmesina occidentalis</i>	200	4
<i>Holmesina paulacoutoi</i>	125	43
<i>Hoplophorus euphractus</i>	280	40
<i>Lestodon armatus</i>	3397	20
<i>Macrauchenia patachonica</i>	794	20
<i>Megatherium americanum</i>	6265	29
<i>Megatherium tarijense</i>	3050	6
<i>Mixotoxodon laensis</i>	1000	13
<i>Morenelaphus brachyceros</i>	50	23
<i>Morenelaphus lujanensis</i>	50	49
<i>Mylodon darwini</i>	1392	12
<i>Nechoerus aesopi</i>	93	78
<i>Neolicaphrium recens</i>	47	49
<i>Neosclerocalyptus paskoenis</i>	280	12

<i>Neuryurus trabeculatus</i>	311	23
<i>Nothrotherium maquinense</i>	150	39
<i>Palaeolama major</i>	1090	46
<i>Palaeolama weddelli</i>	1022	6
<i>Pampatherium humboldti</i>	150	46
<i>Pampatherium typum</i>	200	11
<i>Panochthus tuberculatus</i>	1061	16
<i>Paraceros fragilis</i>	50	23
<i>Pecari maximus*</i>	45	3
<i>Scelidodon chiliensis</i>	1747	5
<i>Scelidothorium leptocephalum</i>	1119	5
<i>Stegomastodon platensis</i>	7580	22
<i>Stegomastodon waringi</i>	6193	34
<i>Tapirus pinchaque*</i>	149	3
<i>Tapirus rondoniensis</i>	208	46
<i>Toxodon platensis</i>	1642	38
<i>Tremarctos ornatus*</i>	140	8
<i>Trigonodops lopesi</i>	1642	52
<i>Valgipes deformis</i>	200	47
<i>Xenorhinotherium bahiense</i>	941	52