

SUPPLEMENTARY MATERIAL

ADDITIONAL FIGURES AND TABLES

Table S1: The error structures, link functions and data transformations for all GLMs.

	Model	Error structure	Link function	Data transformation
Preliminary models	Change in fire size	Gaussian	Identity	Log
	Change in time since last fire	Gaussian	Identity	Log
	Change in radiative power	Gaussian	Identity	Log
	Change in number of fires	Gaussian	Identity	Log
	Change in area burnt	Gamma	Log	-
	Change in boma density	Poisson	Log	-
	Change in mean annual rainfall	Gaussian	Identity	-
	Final Model	Gaussian	Identity	-

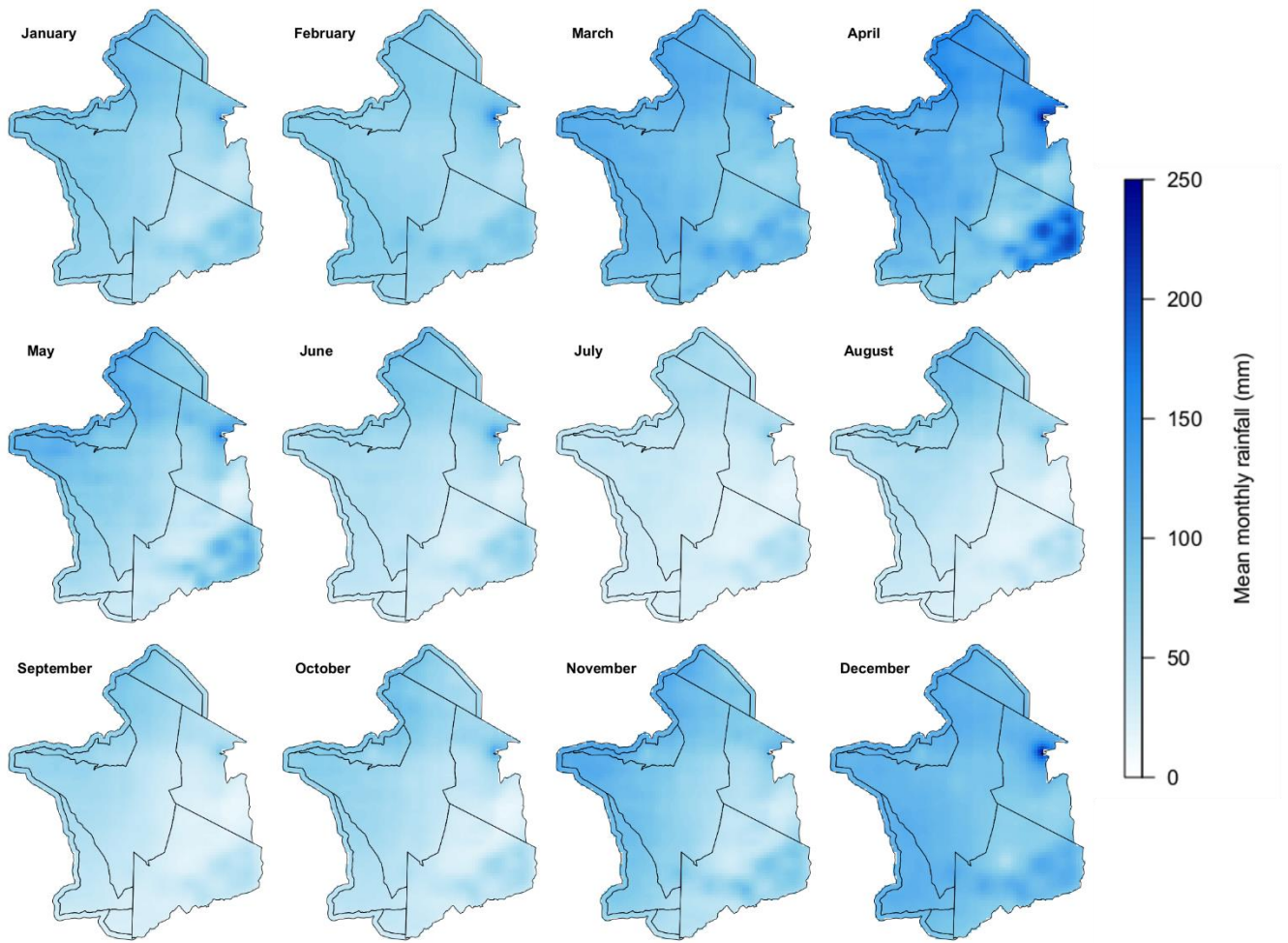


Figure S1: The mean monthly rainfall throughout our study period.

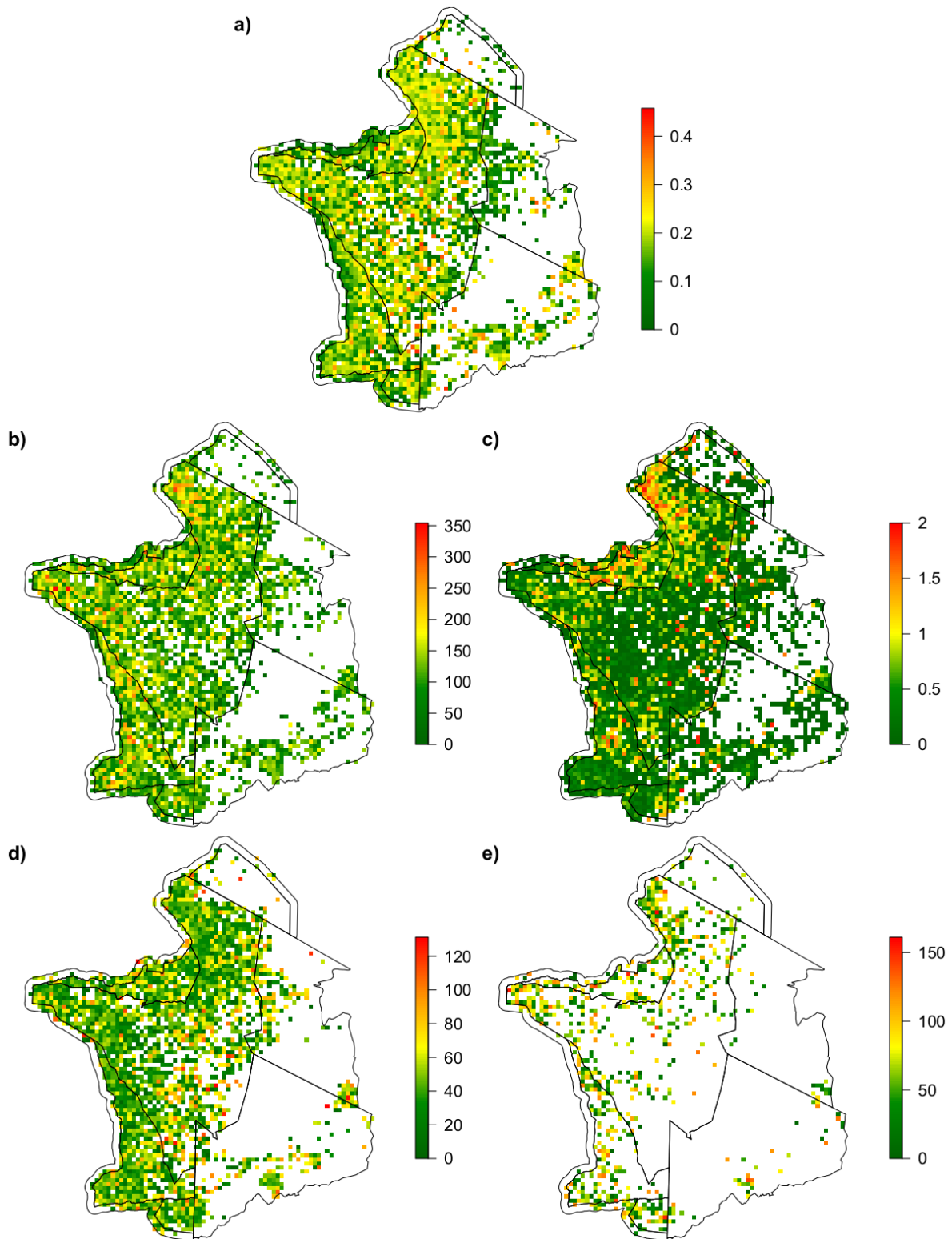


Figure S2: Variability in: a) the number of fires, b) fire size, c) ignition date, d) time since last fire, and e) fire radiative power. Note ignition date is more variable in the north-west.

Variability is measured by the coefficient of variation except for ignition date, for which the angular variance was used.

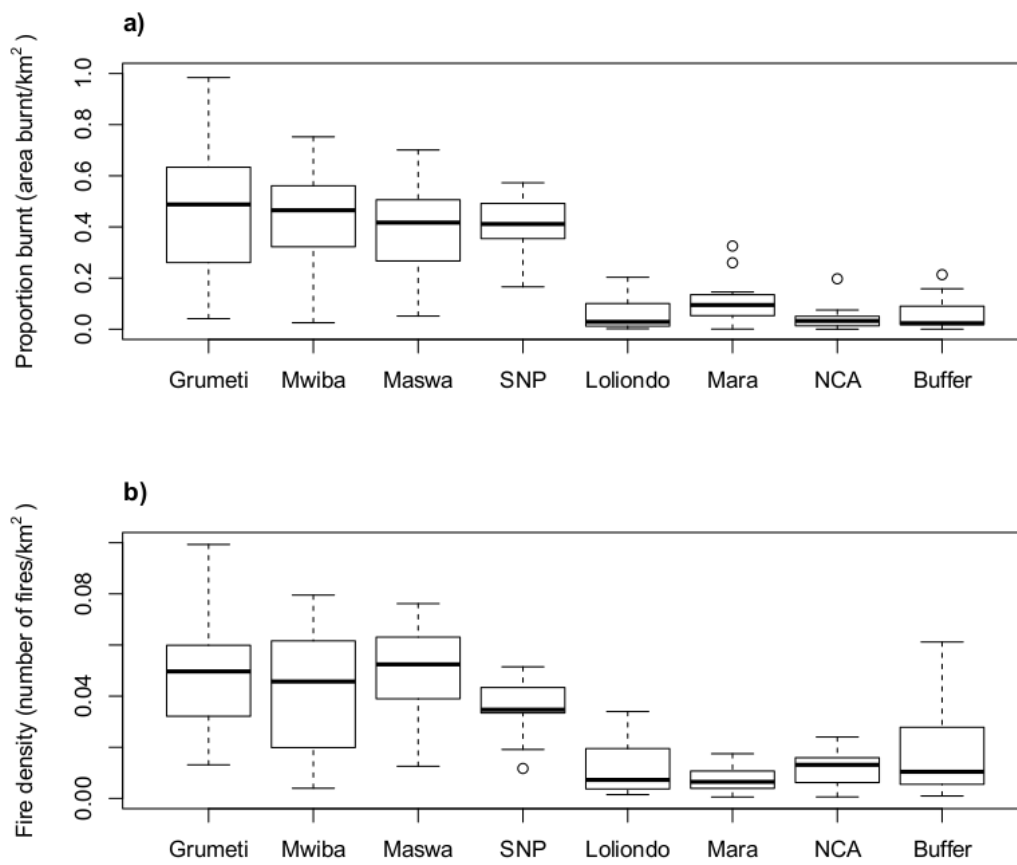


Figure S3: a) The proportion burnt and b) the number of fires per km² in each management unit during our study period.

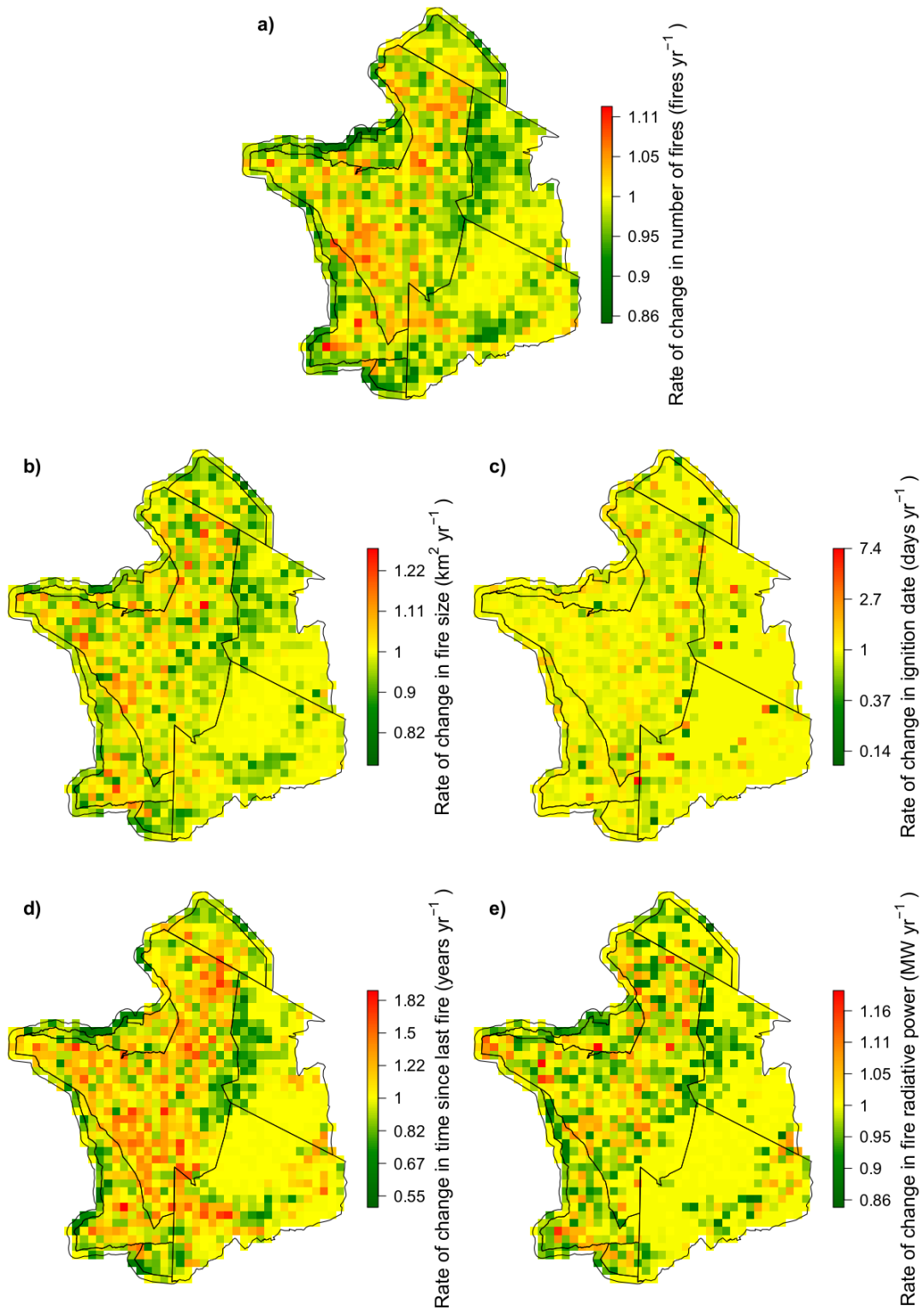


Figure S4: The rate of change in: a) the number of fires, b) median fire size, c) median ignition date, d) median time since last fire, and e) median fire radiative power.

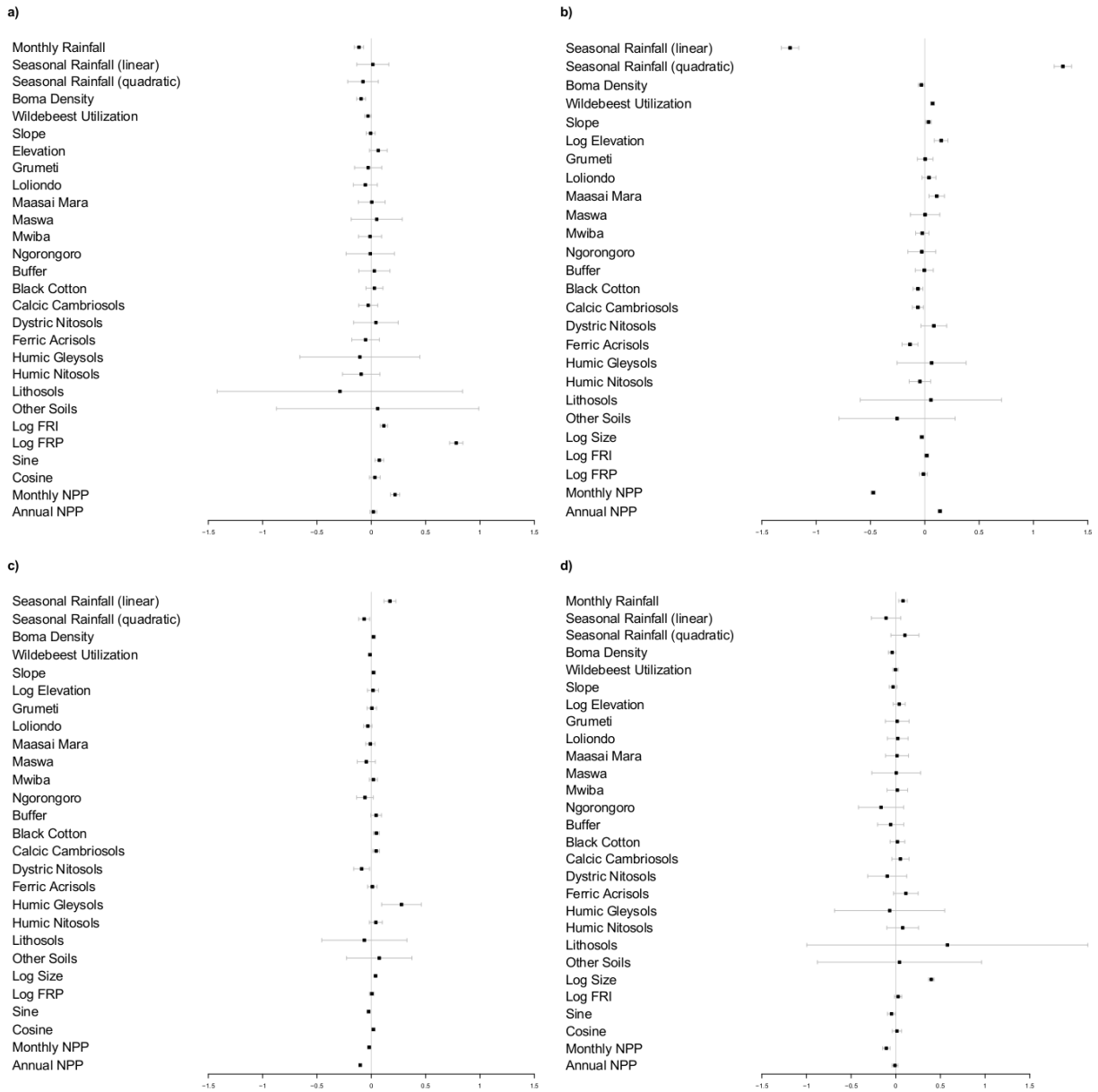


Figure S5: The 95% credible intervals for each fire trait from our spatial models: a) fire size, b) ignition date, c) time since last fire, and d) fire radiative power.

Table S2: The results of ouGLM on the rate of change in the area burnt.

Variable	Df	Deviance	Residual Df	Residual deviance	Pr(>Chi)	Significance
NULL	-	-	1151	12.6030	-	-
Change in boma density	1	0.0268	1150	12.5762	0.007	**
Change in mean annual rainfall	1	0.0150	1149	12.5612	0.04	.
Management	7	0.9936	1142	11.5677	<0.001	***
Mean annual rainfall	1	0.0066	1141	11.5611	0.18	
Baseline area burnt	1	7.1431	1140	4.4180	<0.001	***
Change in boma density x mean annual rainfall	1	0.1071	1139	4.3109	<0.001	***
Change in boma density x baseline area burnt	1	0.0286	1138	4.2823	0.005	**
Change in mean annual rainfall x mean annual rainfall	1	0.0987	1137	4.1835	<0.001	***