

**Small mammal diversity is higher in infrequently compared with frequently burnt rainforest–savanna mosaics in the north Kimberley, Australia**

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**Table S1.** Summary of the bird and reptile observations obtained from the camera traps deployed on the Mitchell Plateau and Bougainville Peninsula from July 2014 to May 2015. For each identified native species, threat categories from the IUCN Red List, as well as national-level and state-level codes, are reported. For state-level codes, the Australian State/Territory of reference is indicated between brackets. Threat codes: LC = Least concern, NT = Near threatened, VU = Vulnerable, EN = Endangered, CR = Critically endangered). Species listed as threatened (VU, EN, or CR) or near threatened (NT) in any of these classifications are in bold. State codes: NT = Northern Territory, SA = South Australia.

	Rainforest		Savanna		IUCN threat code	National threat code	State threat code
	Bougainville Peninsula	Mitchell Plateau	Bougainville Peninsula	Mitchell Plateau			
Total trapping effort (No. of nights)	2755	2634	2561	1217			
<b>BIRDS</b>							
Bar-shouldered dove ( <i>Geopelia humeralis</i> )	8	9	39	0	LC	Not listed	LC (NT)
Bird - unidentified	3	3	3	1	N/A		
Emerald dove ( <i>Chalcophaps indica</i> )	3	9	20	0	LC	Not listed	LC (NT)
Great bowerbird ( <i>Chlamydera nuchalis</i> )	2	9	2	0	LC	Not listed	Not listed
Orange-footed Scrubfowl ( <i>Megapodius reinwardt</i> )	2	41	0	0	LC	Not listed	LC (NT)
Pheasant coucal ( <i>Centropus phasianinus</i> )	1	0	15	0	LC	Not listed	LC (NT)
Rainbow pitta ( <i>Pitta iris</i> )	3	2	0	0	LC	Not listed	LC (NT)
Silver-crowned friarbird ( <i>Philemon argenticeps</i> )	4	0	2	0	LC	Not listed	Not listed
Sulphur-crested cockatoo ( <i>Cacatua galerita</i> )	0	7	0	0	LC	Not listed	LC (NT)
Wedge-tailed eagle ( <i>Aquila audax</i> )	0	0	0	5	LC	Not listed	LC (NT)
<b>Total birds</b>	<b>26</b>	<b>80</b>	<b>81</b>	<b>6</b>			
<b>REPTILES</b>							
Frilled lizard ( <i>Chlamydosaurus kingii</i> )	0	0	0	4	LC	Not listed	LC (NT)
Sand goanna ( <i>Varanus gouldii</i> )	1	0	0	0	LC	Not listed	LC (NT)
Snake - unidentified	2	0	0	0	N/A	N/A	N/A
<b>Total reptiles</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>			

**Table S2.** Summary of the models assessing the effect of vegetation type (rainforest or savanna) and fire metrics (fire frequency, LDS fire frequency, and time since burnt) on the number of species and detections of small mammals. All models used exponential spatial correlation structure.  $R^2$  values are provided for each model

### NUMBER OF SPECIES

**Model: No.Species ~ Fire frequency + Vegetation.  $R^2 = 42\%$**

	Value	Std.Error	DF	t-value	p-value
(Intercept)	2.470689	0.211355	33	11.68976	0
FF	-0.16514	0.043497	33	-3.79664	0.0006
VegetationSavanna	-0.16057	0.182337	33	-0.88063	0.3849

**Model: No.Species ~ LDS Fire frequency + Vegetation.  $R^2 = 27.9\%$**

	Value	Std.Error	DF	t-value	p-value
(Intercept)	2.395153	0.26433	33	9.061237	0
LDS_FF	-0.30315	0.112323	33	-2.69888	0.0109
VegetationSavanna	-0.16719	0.200563	33	-0.83362	0.4105

**Model: No.Species ~ LDS Fire frequency + Vegetation.  $R^2 = 22.6\%$**

	Value	Std.Error	DF	t-value	p-value
(Intercept)	1.397406	0.305658	33	4.571801	0.0001
TsF	0.093457	0.050648	33	1.845212	0.074
VegetationSavanna	-0.2052	0.209217	33	-0.98079	0.3338

### NUMBER OF DETECTIONS

**Model: No.Species ~ LDS Fire frequency + Vegetation.  $R^2 = 20.9\%$**

	Value	Std.Error	DF	t-value	p-value
(Intercept)	4.894239	0.32901	33	14.87568	0
FF	-0.18957	0.074356	33	-2.54952	0.0156
VegetationSavanna	-0.65223	0.364981	33	-1.78702	0.0831

**Model: No.Species ~ LDS Fire frequency + Vegetation.  $R^2 = 16.5\%$**

	Value	Std.Error	DF	t-value	p-value
(Intercept)	4.891884	0.398797	33	12.2666	0
LDS_FF	-0.38374	0.184653	33	-2.07818	0.0455
VegetationSavanna	-0.66098	0.392345	33	-1.68469	0.1015

**Model: No.Species ~ LDS Fire frequency + Vegetation.  $R^2 = 7.0\%$**

	Value	Std.Error	DF	t-value	p-value
(Intercept)	3.911569	0.463898	33	8.431965	0
TsF	0.054428	0.085615	33	0.635734	0.5293
VegetationSavanna	-0.69449	0.451617	33	-1.53778	0.1336