

Supplementary Material

Table S1. Names and descriptions of variables used in the models.

Variable	Description	Source
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Co-occurrence analyses.

<i>Zenaida Dove</i>	Detection of <i>Zenaida Dove</i>	This survey camera traps data
<i>Bridled Quail-Dove</i>	Detection of <i>Bridled Quail-Dove</i>	This survey camera traps data
<i>Ruddy Quail-Dove</i>	Detection of <i>Ruddy Quail-Dove</i>	This survey camera traps data
<i>Birds</i>	Among all birds detected: Forest thrush (<i>Turdus lherminieri</i>), Green heron (<i>Butorides virescens</i>), American yellow warbler (<i>Setophaga petechia</i>), Carib grackle (<i>Quiscalus lugubris</i>), Yellowcrowned Night Heron (<i>Nyctanassa violacea</i>), Gray kingbird (<i>Tyrannus dominicensis</i>), Bananaquit (<i>Coereba flaveola</i>), Lesser Antillean bullfinch (<i>Loxigilla noctis</i>), Green-throated carib (<i>Eulampis holosericeus</i>), Chicken (<i>Gallus gallus domesticus</i>), Common ground dove (<i>Columbina passerina</i>).	This survey camera traps data
<i>Raccoon</i>	Detections of northern raccoons	This survey camera traps data
<i>Mongoose</i>	Detections of small Indian mongooses	This survey camera traps data
<i>Cat</i>	Detections of domestic cats	This survey camera traps data
<i>Dog</i>	Detections of domestic dogs	This survey camera traps data
<i>Rodents</i>	Combined detections of all rodent species	This survey camera traps data
<i>Humans</i>	Detections of humans	This survey camera traps data

Occupancy and detection models.

<i>Forest cover</i>	Forest cover categories as described in Table 2	Map of Guadeloupe forests
<i>Forest structure</i>	Visual estimate on each camera-trap survey locations	These camera-trap survey locations
<i>Elevation</i>	Elevation measured at each site	GPS Garmin Dakota 20
<i>Temperature</i>	Daily temperature measured at each site	This survey camera traps data
<i>Canopy openness</i>	Visual estimate on each camera-trap survey locations	These camera-trap survey locations

Table S2. Land cover categories used in this study.

Categories	Description
<i>Tropical rainforest</i>	Montane rainforests, submontane rainforests
<i>Flooded forest</i>	Swamp forest Mangrove
<i>Dry forest</i>	Semi-deciduous forests Semi-deciduous forests on limestone ground Seasonal evergreen forests Formation with predominant edaphic determinism, rocky coastline

Table S3: Full table of abundance and detection models for the Bridled Quail-Dove and the Zenaida Dove in Guadeloupe forests. Abundance (λ) was modelled according to temperature (temp), elevation, canopy openness (co) or forest types (forest), and the probability of detection (p) was modelled according to forest structure (fs) and temperature (temp).

Models		AICc	Δ AICc	Weight	logLik	d.f.
Bridled Quail-Dove						
M1	p(.),λ(temp)	146.83	0.00	0.48	-69.82	3.00
M2	p(temp), λ (temp)	149.42	2.59	0.13	-69.66	4.00
M3	p(fs), λ (temp)	149.44	2.61	0.13	-69.67	4.00
M4	p(.), λ (forest+temp)	151.03	4.20	0.06	-68.85	5.00
M5	p(fs+temp), λ (temp)	152.45	5.62	0.03	-69.56	5.00
M6	p(.), λ (forest)	152.66	5.83	0.03	-71.28	4.00
M7	p(.), λ (elevation)	152.97	6.14	0.02	-72.88	3.00
M8	p(fs), λ (forest+temp)	153.68	6.85	0.02	-68.37	6.00
M9	p(.), λ (forest+co)	153.89	7.06	0.01	-70.28	5.00
M10	p(.), λ (co)	154.16	7.33	0.01	-73.48	3.00
M11	p(temp), λ (forest+temp)	154.41	7.58	0.01	-68.73	6.00
M12	p(temp), λ (co)	154.63	7.80	0.01	-72.26	4.00
M13	p(temp), λ (forest)	154.96	8.13	0.01	-70.82	5.00
M14	p(temp), λ (elevation)	155.44	8.61	0.01	-72.67	4.00
M15	p(fs), λ (forest)	155.51	8.68	0.01	-71.09	5.00
M16	p(.), λ (forest+elevation)	155.54	8.71	0.01	-71.10	5.00
M17	p(fs), λ (elevation)	155.85	9.02	0.01	-72.87	4.00
M18	p(temp), λ (forest+co)	156.54	9.71	0.00	-69.80	6.00
M19	p(fs), λ (co)	157.06	10.23	0.00	-73.48	4.00
M20	p(fs), λ (forest+co)	157.17	10.34	0.00	-70.11	6.00
M21	p(.), λ (forest+elevation+co)	157.21	10.38	0.00	-70.13	6.00
M22	p(fs+temp), λ (co)	157.34	10.51	0.00	-72.01	5.00
M23	p(fs+temp), λ (forest)	157.62	10.79	0.00	-70.34	6.00
M24	p(fs+temp), λ (forest+temp)	157.66	10.83	0.00	-68.33	7.00
M25	p(temp), λ (.)	158.00	11.17	0.00	-75.40	3.00
M26	p(temp), λ (forest+elevation)	158.53	11.70	0.00	-70.80	6.00
M27	p(fs+temp), λ (elevation)	158.57	11.74	0.00	-72.62	5.00
M28	p(fs), λ (forest+elevation)	158.70	11.87	0.00	-70.88	6.00
M29	p(.), λ (.)	159.50	12.67	0.00	-77.46	2.00
M30	p(fs+temp), λ (forest+co)	159.73	12.89	0.00	-69.36	7.00
M31	p(temp), λ (forest+elevation+co)	160.59	13.76	0.00	-69.79	7.00
M32	p(fs), λ (forest+elevation+co)	160.85	14.02	0.00	-69.93	7.00
M33	p(fs+temp), λ (.)	160.91	14.08	0.00	-75.40	4.00
M34	p(fs+temp), λ (forest+elevation)	161.66	14.83	0.00	-70.33	7.00
M35	p(fs), λ (.)	161.69	14.86	0.00	-77.25	3.00
M36	p(fs+temp), λ (forest+elevation+co)	164.32	17.49	0.00	-69.36	8.00
Zenaida Dove						
M1	p(.),λ(forest)	129.96	0.00	0.21	-59.93	4

M2	p(.),λ(forest+co)	131.06	1.10	0.12	-58.86	5
M3	p(.),λ(co)	131.17	1.21	0.11	-61.98	3
M4	p(.), λ (elevation)	132.14	2.18	0.07	-62.47	3
M5	p(temp), λ (forest)	132.48	2.53	0.06	-59.58	5
M6	p(.), λ (forest+elevation)	133.00	3.05	0.04	-59.84	5
M7	p(.), λ (forest+temp)	133.12	3.16	0.04	-59.89	5
M8	p(fs), λ (forest)	133.16	3.20	0.04	-59.91	5
M9	p(temp), λ (co)	133.42	3.46	0.04	-61.66	4
M10	p(fs), λ (co)	133.53	3.57	0.03	-61.71	4
M11	p(.), λ (temp)	133.94	3.98	0.03	-63.37	3
M12	p(temp), λ (forest+co)	134.11	4.15	0.03	-58.58	6
M13	p(.), λ (forest+elevation+co)	134.23	4.27	0.02	-58.64	6
M14	p(temp), λ (elevation)	134.56	4.60	0.02	-62.23	4
M15	p(fs), λ (forest+co)	134.63	4.67	0.02	-58.85	6
M16	p(fs), λ (elevation)	135.02	5.06	0.02	-62.46	4
M17	p(fs+temp), λ (co)	135.45	5.50	0.01	-61.06	5
M18	p(temp), λ (forest+elevation)	135.73	5.77	0.01	-59.39	6
M19	p(fs+temp), λ (forest)	135.82	5.86	0.01	-59.44	6
M20	p(temp), λ (forest+temp)	136.09	6.13	0.01	-59.58	6
M21	p(temp), λ (temp)	136.42	6.47	0.01	-63.16	4
M22	p(fs), λ (temp)	136.48	6.52	0.01	-63.19	4
M23	p(fs), λ (forest+elevation)	136.61	6.65	0.01	-59.84	6
M24	p(fs), λ (forest+temp)	136.64	6.68	0.01	-59.85	6
M25	p(temp), λ (forest+elevation+co)	137.51	7.55	0.00	-58.25	7
M26	p(fs+temp), λ (elevation)	137.59	7.64	0.00	-62.13	5
M27	p(fs+temp), λ (forest+co)	137.89	7.93	0.00	-58.44	7
M28	p(fs), λ (forest+elevation+co)	138.29	8.33	0.00	-58.64	7
M29	p(fs+temp), λ (temp)	138.99	9.03	0.00	-62.83	5
M30	p(.), λ (.)	139.29	9.34	0.00	-67.36	2
M31	p(fs+temp), λ (forest+elevation)	139.66	9.70	0.00	-59.33	7
M32	p(fs+temp), λ (forest+temp)	139.84	9.88	0.00	-59.42	7
M33	p(temp), λ (.)	140.09	10.13	0.00	-66.44	3
M34	p(fs), λ (.)	141.62	11.66	0.00	-67.21	3
M35	p(fs+temp), λ (forest+elevation+co)	141.98	12.02	0.00	-58.19	8
M36	p(fs+temp), λ (.)	142.99	13.03	0.00	-66.44	4

Competitive models are highlighted in bold characters. Mean dispersion parameters (\hat{c}) obtained using MacKenzie and Bailey's goodness-of-fit test for best models were: $\hat{c}_{\text{Bridled Quail-Dove M1}} = 0.98$; $\hat{c}_{\text{Zenaida Dove M2}} = 0.66$; $\hat{c}_{\text{Zenaida Dove M6}} = 0.68$; $\hat{c}_{\text{Zenaida Dove M3}} = 0.66$.