Appendix A: Bird Modeling

Blue-crowned Lorikeet

Model	Series adjustment	Covariate	Num params	-LogL	AICc	Delta AICc	AIC weights	Weights	Notes
HR	Key	None	2	182.72	169.56	0	1.00000	1	
HN	Key	None	1	185.18	372.40	202.84	0.00000	8.99E-45	
HR	Key	MinSS	3	183.25	372.72	203.16	0.00000	7.66E-45	
HR	Key	Obs	3	183.25	372.72	203.16	0.00000	7.66E-45	
HR	Key	Yr	3	183.25	372.72	203.16	0.00000	7.66E-45	
HR	Key	Rain	3	183.25	372.72	203.16	0.00000	7.66E-45	
HR	Key	Panel	3	183.25	372.72	203.16	0.00000	7.66E-45	
HR	Key	Wind	5	183.25	377.06	207.50	0.00000	8.75E-46	
HN	Cos	None							Convergence issues
HN	H-poly	None							Convergence issues
HR	Cos	None							Convergence issues
HR	S-poly	None							Convergence issues
HR	Key	Cloud							Convergence issues
HR	Key	Gust							Convergence issues

Crimson-crowned Fruit Dove

Model	Series adjustment	Covariate	Num params	-LogL	AICc	Delta AICc	AIC weights	Weights	Notes
HR	Key	Obs	3	1895.19	3796.45	0	0.95096	1	
HR	Key	Gust	6	1895.09	3802.38	5.93	0.04903	0.05156	
HR	Key	Yr	3	1906.86	3819.78	23.33	0.00001	8.59E-06	
HR	Key	Wind	5	1915.49	3841.13	44.68	0.00000	1.99E-10	
HR	Key	None	2	1922.09	3848.21	51.76	0.00000	5.76E-12	
HR	Key	Panel	3	1922.08	3850.21	53.76	0.00000	2.12E-12	
HR	Key	MinSS	3	1922.08	3850.22	53.77	0.00000	2.11E-12	
HR	Key	Cloud	12	1913.17	3851.08	54.63	0.00000	1.37E-12	
HN	Key	None	1	1926.00	3854.00	57.55	0.00000	3.19E-13	
HN	Cos	None							Convergence issues
HN	H-poly	None							Convergence issues
HR	Cos	None							Convergence issues
HR	S-poly	None							Convergence issues
HR	Key	Rain							Convergence issues

Pacific Imperial Pidgeon

Model	Series adjustment	Covariate	Num params	-LogL	AICc	Delta AICc	AIC weights	Weights	Notes
HR	Key	Cloud	12	1180.41	2386.00	0	0.37108	1	
HR	Key	Gust	6	1187.00	2386.31	0.31	0.31780	0.856415	
HR	Key	None	2	1191.80	2387.64	1.64	0.16343	0.440432	
HR	Key	Rain	4	1190.82	2389.79	3.79	0.05578	0.150318	
HR	Key	Panel	3	1192.83	2391.75	5.75	0.02093	0.056416	
HR	Key	MinSS	3	1192.83	2391.75	5.75	0.02093	0.056416	
HR	Key	Obs	3	1192.83	2391.75	5.75	0.02093	0.056416	
HR	Key	Yr	3	1192.83	2391.75	5.75	0.02093	0.056416	
HR	Key	Wind	4	1192.83	2393.81	7.81	0.00747	0.020141	
HN	Key	None	1	1198.27	2398.55	12.55	0.00070	0.001883	
HN	Cos	None							Convergence issues
HN	H-poly	None							Convergence issues
HR	Cos	None							Convergence issues
HR	S-poly	None							Convergence issues

Polynesian Starling

Model	Series adjustment	Covariate	Num params	-LogL	AICc	Delta AICc	AIC weights	Weights	Notes
HN	Key	None	1	866.50	1735.02	0	0.70022	1	
HR	Key	None	2	866.88	1737.81	2.79	0.17354	0.247833	
HR	Key	Obs	3	867.53	1741.16	6.14	0.03251	0.046421	
HR	Key	Yr	3	867.61	1741.31	6.29	0.03016	0.043067	
HR	Key	Panel	3	867.70	1741.49	6.47	0.02756	0.03936	
HR	Key	MinSS	3	867.70	1741.50	6.48	0.02742	0.039164	
HR	Key	Wind	5	867.42	1745.08	10.06	0.00458	0.006539	
HR	Key	Rain	3	867.67	1745.59	10.57	0.00355	0.005067	
HR	Key	Cloud	12	862.16	1749.64	14.62	0.00047	0.000669	
HN	Cos	None							Key model selected
HN	H-poly	None							Key model selected
HR	Cos	None							Key model selected
HR	S-poly	None							Key model selected
HR	Key	Gust							Convergence issues

Polynesian Wattled Honeyeater

Model	Series adjustment	Covariate	Num params	-LogL	AICc	Delta AICc	AIC weights	Weights	Notes
HR	Key	Yr	3	6250.79	12507.60	0	0.90827	1	
HR	Key	Gust	6	6250.21	12512.48	4.88	0.07917	0.087161	
HR	Key	None	2	6256.15	12516.32	8.72	0.01161	0.012778	
HR	Key	Rain	5	6255.72	12521.48	13.88	0.00088	0.000968	
HR	Key	Cloud	12	6251.43	12527.05	19.45	0.00005	5.98E-05	
HR	Key	MinSS	3	6261.90	12529.81	22.21	0.00001	1.5E-05	
HN	Key	None	1	6264.33	12530.67	23.07	0.00001	9.78E-06	
HR	Key	Panel	3	6263.25	12532.52	24.92	0.00000	3.88E-06	
HR	Key	Obs	3	6283.40	12572.80	65.20	0.00000	6.95E-15	
HR	Key	Wind	5	6282.43	12574.90	67.30	0.00000	2.43E-15	
HN	Cos	None							Convergence issues
HN	H-poly	None							Convergence issues
HR	Cos	None							Convergence issues
HR	S-poly	None							Convergence issues

Samoan Starling

Model	Series adjustment	Covariate	Num params	-LogL	AICc	Delta AICc	AIC weights	Weights	Notes
HR	Key	Yr	2	2179.40	4362.81	0	0.99844	1	
HR	Key	Gust	5	2182.82	4375.74	12.93	0.00155	0.001557	
HR	Key	Obs	2	2193.90	4391.83	29.02	0.00000	4.99E-07	
HR	Key	Wind	4	2193.70	4395.47	32.66	0.00000	8.09E-08	
HR	Key	Cloud	11	2187.03	4396.53	33.72	0.00000	4.76E-08	
HR	Key	None	2	2196.49	4396.99	34.18	0.00000	3.78E-08	
HN	Key	None	1	2197.85	4397.72	34.91	0.00000	2.63E-08	
HR	Key	MinSS	2	2197.14	4398.30	35.49	0.00000	1.97E-08	
HR	Key	Panel	2	2197.61	4399.25	36.44	0.00000	1.22E-08	
HN	Cos	None							Key model selected
HN	H-poly	None							Convergence issues
HR	Cos	None							Key model selected
HR	S-poly	None							Key model selected
HR	Key	Rain							Convergence issues