Supplementary Table 1. Generalized linear mixed models predicting bird abundance for selected bird functional group categories (Note: AICc = 2nd order bias correction for Akaike’s Information Criterion, ΔAICc = differences in AICc value of each model from the lowest AICc; *li* = relative likelihood of each model, *wi* = the probability of each model, and ER = evidence ratios = exp (-1/2Δbest)/exp (-1/2Δi)).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Overall** |  |  |  |  |  |
| No | Model | **AICc** | **AICc** | **L(gi/x)=exp(-1/2\*i)=*li*** | **wi** | **ER** |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -259.3 | 0.00 | 1.00 | 0.99 |  |
| 4 | Intercept + Amount + Isolation + npc | -249.9 | 9.43 | 0.01 | 0.01 | 112 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -246.8 | 12.52 | 0.00 | 0.00 | 523 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -241.3 | 17.97 | 0.00 | 0.00 | 7982 |
| 5 | Intercept + Amount + npc | -235.5 | 23.83 | 0.00 | 0.00 | 149492 |
| 7 | Intercept + Isolation + npc | -227.6 | 31.69 | 0.00 | 0.00 | 7610200 |
| 9 | Intercept + Canopy\_cover + npc | -223.4 | 35.85 | 0.00 | 0.00 | 60915609 |
| 2 | Intercept + npc | -208.6 | 50.72 | 0.00 | 0.00 | 103206740213 |
| 1 | Intercept | -164.8 | 94.53 | 0.00 | 0.00 | 336456317403605000000 |
|  | **Forest-restricted birds** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -64.8 | 0.00 | 1.00 | 0.64 |  |
| 4 | Intercept + Amount + Isolation + npc | -63.2 | 1.58 | 0.45 | 0.29 | 2 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -59.9 | 4.90 | 0.09 | 0.06 | 12 |
| 7 | Intercept + Isolation + npc | -55.1 | 9.62 | 0.01 | 0.01 | 123 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -54.7 | 10.08 | 0.01 | 0.00 | 154 |
| 5 | Intercept + Amount + npc | -54.2 | 10.54 | 0.01 | 0.00 | 194 |
| 9 | Intercept + Canopy\_cover + npc | -49.3 | 15.45 | 0.00 | 0.00 | 2264 |
| 2 | Intercept + npc | -46.1 | 18.65 | 0.00 | 0.00 | 11215 |
| 1 | Intercept | -31.3 | 33.48 | 0.00 | 0.00 | 18624715 |
|  | **Forest-associated birds** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -185.8 | 0.00 | 1.00 | 0.90 |  |
| 4 | Intercept + Amount + Isolation + npc | -180.1 | 5.69 | 0.06 | 0.05 | 17 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -178.5 | 7.27 | 0.03 | 0.02 | 38 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -177.9 | 7.82 | 0.02 | 0.02 | 50 |
| 5 | Intercept + Amount + npc | -174.6 | 11.12 | 0.00 | 0.00 | 260 |
| 9 | Intercept + Canopy\_cover + npc | -166.8 | 18.97 | 0.00 | 0.00 | 13161 |
| 7 | Intercept + Isolation + npc | -166.1 | 19.71 | 0.00 | 0.00 | 19053 |
| 2 | Intercept + npc | -157.3 | 28.45 | 0.00 | 0.00 | 1506049 |
| 1 | Intercept | -131.1 | 54.71 | 0.00 | 0.00 | 758796907891 |
|  | **Insectivores** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -164.8 | 0.00 | 1.00 | 0.83 |  |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -160.4 | 4.41 | 0.11 | 0.09 | 9 |
| 4 | Intercept + Amount + Isolation + npc | -159.7 | 5.14 | 0.08 | 0.06 | 13 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -156.4 | 8.47 | 0.01 | 0.01 | 69 |
| 5 | Intercept + Amount + npc | -153.8 | 11.05 | 0.00 | 0.00 | 251 |
| 7 | Intercept + Isolation + npc | -150.5 | 14.39 | 0.00 | 0.00 | 1333 |
| 9 | Intercept + Canopy\_cover + npc | -150.3 | 14.54 | 0.00 | 0.00 | 1437 |
| 2 | Intercept + npc | -143.6 | 21.25 | 0.00 | 0.00 | 41151 |
| 1 | Intercept | -119.0 | 45.81 | 0.00 | 0.00 | 8861660506 |
|  | **Frugivores** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -58.6 | 0.00 | 1.00 | 0.59 |  |
| 4 | Intercept + Amount + Isolation + npc | -57.2 | 1.32 | 0.52 | 0.31 | 2 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -54.2 | 4.33 | 0.11 | 0.07 | 9 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -50.9 | 7.70 | 0.02 | 0.01 | 47 |
| 7 | Intercept + Isolation + npc | -50.5 | 8.10 | 0.02 | 0.01 | 57 |
| 5 | Intercept + Amount + npc | -49.4 | 9.16 | 0.01 | 0.01 | 98 |
| 9 | Intercept + Canopy\_cover + npc | -43.5 | 15.06 | 0.00 | 0.00 | 1863 |
| 2 | Intercept + npc | -38.9 | 19.65 | 0.00 | 0.00 | 18490 |
| 1 | Intercept | -28.8 | 29.79 | 0.00 | 0.00 | 2943177 |
|  | **Granivores** |  |  |  |  |  |
| 9 | Intercept + Canopy\_cover + npc | -15.3 | 0.00 | 1.00 | 0.35 |  |
| 2 | Intercept + npc | -13.9 | 1.41 | 0.49 | 0.18 | 2 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -13.1 | 2.15 | 0.34 | 0.12 | 3 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -12.7 | 2.55 | 0.28 | 0.10 | 4 |
| 5 | Intercept + Amount + npc | -12.4 | 2.85 | 0.24 | 0.09 | 4 |
| 7 | Intercept + Isolation + npc | -12.1 | 3.13 | 0.21 | 0.07 | 5 |
| 1 | Intercept | -10.5 | 4.78 | 0.09 | 0.03 | 11 |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -10.4 | 4.83 | 0.09 | 0.03 | 11 |
| 4 | Intercept + Amount + Isolation + npc | -10.1 | 5.21 | 0.07 | 0.03 | 14 |
|  | **Understory foragers** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -59.3 | 0.00 | 1.00 | 0.62 |  |
| 6 | Intercept + Amount + Canopy\_cover + npc | -56.4 | 2.93 | 0.23 | 0.14 | 4 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -55.5 | 3.80 | 0.15 | 0.09 | 7 |
| 4 | Intercept + Amount + Isolation + npc | -55.5 | 3.89 | 0.14 | 0.09 | 7 |
| 5 | Intercept + Amount + npc | -54.1 | 5.29 | 0.07 | 0.04 | 14 |
| 9 | Intercept + Canopy\_cover + npc | -51.6 | 7.72 | 0.02 | 0.01 | 47 |
| 7 | Intercept + Isolation + npc | -47.8 | 11.57 | 0.00 | 0.00 | 325 |
| 2 | Intercept + npc | -45.8 | 13.52 | 0.00 | 0.00 | 863 |
| 1 | Intercept | -32.2 | 27.14 | 0.00 | 0.00 | 782305 |
|  | **Canopy-subcanopy foragers** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -125.4 | 0.00 | 1.00 | 0.70 |  |
| 4 | Intercept + Amount + Isolation + npc | -122.4 | 3.04 | 0.22 | 0.15 | 5 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -122.1 | 3.29 | 0.19 | 0.13 | 5 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -116.7 | 8.67 | 0.01 | 0.01 | 76 |
| 5 | Intercept + Amount + npc | -115.0 | 10.40 | 0.01 | 0.00 | 181 |
| 7 | Intercept + Isolation + npc | -115.0 | 10.44 | 0.01 | 0.00 | 185 |
| 9 | Intercept + Canopy\_cover + npc | -110.7 | 14.66 | 0.00 | 0.00 | 1525 |
| 2 | Intercept + npc | -104.8 | 20.58 | 0.00 | 0.00 | 29437 |
| 1 | Intercept | -88.0 | 37.40 | 0.00 | 0.00 | 132222941 |
|  | **Ground foragers** |  |  |  |  |  |
| 5 | Intercept + Amount + npc | -33.4 | 0.00 | 1.00 | 0.20 |  |
| 4 | Intercept + Amount + Isolation + npc | -33.2 | 0.13 | 0.94 | 0.19 | 1 |
| 7 | Intercept + Isolation + npc | -33.2 | 0.16 | 0.92 | 0.19 | 1 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -32.1 | 1.26 | 0.53 | 0.11 | 2 |
| 2 | Intercept + npc | -32.0 | 1.38 | 0.50 | 0.10 | 2 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -31.5 | 1.91 | 0.38 | 0.08 | 3 |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -31.4 | 1.92 | 0.38 | 0.08 | 3 |
| 9 | Intercept + Canopy\_cover + npc | -30.8 | 2.53 | 0.28 | 0.06 | 4 |
| 1 | Intercept | -22.6 | 10.79 | 0.00 | 0.00 | 220 |
|  | **Understory nesters** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -97.0 | 0.00 | 1.00 | 0.68 |  |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -94.8 | 2.24 | 0.33 | 0.22 | 3 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -91.4 | 5.65 | 0.06 | 0.04 | 17 |
| 4 | Intercept + Amount + Isolation + npc | -91.3 | 5.74 | 0.06 | 0.04 | 18 |
| 5 | Intercept + Amount + npc | -87.7 | 9.35 | 0.01 | 0.01 | 107 |
| 9 | Intercept + Canopy\_cover + npc | -87.5 | 9.55 | 0.01 | 0.01 | 119 |
| 7 | Intercept + Isolation + npc | -84.7 | 12.30 | 0.00 | 0.00 | 469 |
| 2 | Intercept + npc | -79.8 | 17.26 | 0.00 | 0.00 | 5597 |
| 1 | Intercept | -55.0 | 42.02 | 0.00 | 0.00 | 1332070053 |
|  | **Canopy subcanopy nesters** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -124.6 | 0.00 | 1.00 | 0.64 |  |
| 4 | Intercept + Amount + Isolation + npc | -123.3 | 1.35 | 0.51 | 0.32 | 2 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -118.9 | 5.76 | 0.06 | 0.04 | 18 |
| 7 | Intercept + Isolation + npc | -113.0 | 11.64 | 0.00 | 0.00 | 337 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -113.0 | 11.65 | 0.00 | 0.00 | 339 |
| 5 | Intercept + Amount + npc | -112.7 | 11.91 | 0.00 | 0.00 | 386 |
| 9 | Intercept + Canopy\_cover + npc | -102.9 | 21.72 | 0.00 | 0.00 | 52052 |
| 2 | Intercept + npc | -97.9 | 26.68 | 0.00 | 0.00 | 621568 |
| 1 | Intercept | -82.0 | 42.66 | 0.00 | 0.00 | 1834430654 |
|  | **Residents** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -231.7 | 0.00 | 1.00 | 0.98 |  |
| 4 | Intercept + Amount + Isolation + npc | -222.8 | 8.87 | 0.01 | 0.01 | 84 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -221.4 | 10.28 | 0.01 | 0.01 | 171 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -214.2 | 17.52 | 0.00 | 0.00 | 6374 |
| 5 | Intercept + Amount + npc | -208.6 | 23.06 | 0.00 | 0.00 | 101722 |
| 7 | Intercept + Isolation + npc | -203.5 | 28.17 | 0.00 | 0.00 | 1309296 |
| 9 | Intercept + Canopy\_cover + npc | -198.5 | 33.20 | 0.00 | 0.00 | 16191549 |
| 2 | Intercept + npc | -184.4 | 47.30 | 0.00 | 0.00 | 18666568872 |
| 1 | Intercept | -140.3 | 91.38 | 0.00 | 0.00 | 69648998849832100000 |
|  | **Open nesters** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -130.1 | 0.00 | 1.00 | 0.92 |  |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -124.2 | 5.98 | 0.05 | 0.05 | 20 |
| 4 | Intercept + Amount + Isolation + npc | -122.9 | 7.25 | 0.03 | 0.02 | 38 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -120.3 | 9.83 | 0.01 | 0.01 | 136 |
| 5 | Intercept + Amount + npc | -115.7 | 14.44 | 0.00 | 0.00 | 1366 |
| 9 | Intercept + Canopy\_cover + npc | -110.9 | 19.22 | 0.00 | 0.00 | 14913 |
| 7 | Intercept + Isolation + npc | -109.7 | 20.45 | 0.00 | 0.00 | 27584 |
| 2 | Intercept + npc | -99.5 | 30.65 | 0.00 | 0.00 | 4524420 |
| 1 | Intercept | -78.7 | 51.44 | 0.00 | 0.00 | 147929256528 |
|  | **Cavity nesters** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -58.7 | 0.00 | 1.00 | 0.39 |  |
| 4 | Intercept + Amount + Isolation + npc | -58.4 | 0.35 | 0.84 | 0.33 | 1 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -57.5 | 1.28 | 0.53 | 0.21 | 2 |
| 7 | Intercept + Isolation + npc | -54.8 | 3.94 | 0.14 | 0.05 | 7 |
| 5 | Intercept + Amount + npc | -50.7 | 8.09 | 0.02 | 0.01 | 57 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -49.7 | 9.03 | 0.01 | 0.00 | 91 |
| 9 | Intercept + Canopy\_cover + npc | -47.5 | 11.25 | 0.00 | 0.00 | 277 |
| 2 | Intercept + npc | -46.6 | 12.12 | 0.00 | 0.00 | 428 |
| 1 | Intercept | -34.8 | 23.97 | 0.00 | 0.00 | 160332 |
|  | **Closed nesters** |  |  |  |  |  |
| 5 | Intercept + Amount + npc | -47.7 | 0.00 | 1.00 | 0.30 |  |
| 6 | Intercept + Amount + Canopy\_cover + npc | -46.8 | 0.94 | 0.63 | 0.19 | 2 |
| 4 | Intercept + Amount + Isolation + npc | -46.2 | 1.51 | 0.47 | 0.14 | 2 |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -45.4 | 2.33 | 0.31 | 0.09 | 3 |
| 9 | Intercept + Canopy\_cover + npc | -45.1 | 2.57 | 0.28 | 0.08 | 4 |
| 2 | Intercept + npc | -44.9 | 2.76 | 0.25 | 0.08 | 4 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -44.4 | 3.28 | 0.19 | 0.06 | 5 |
| 7 | Intercept + Isolation + npc | -44.1 | 3.62 | 0.16 | 0.05 | 6 |
| 1 | Intercept | -37.0 | 10.73 | 0.00 | 0.00 | 214 |
|  | **Ant-follower** |  |  |  |  |  |
| 5 | Intercept + Amount + npc | -7.9 | 0.00 | 1.00 | 0.24 |  |
| 2 | Intercept + npc | -6.8 | 1.12 | 0.57 | 0.14 | 2 |
| 4 | Intercept + Amount + Isolation + npc | -6.7 | 1.21 | 0.55 | 0.13 | 2 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -6.4 | 1.51 | 0.47 | 0.11 | 2 |
| 9 | Intercept + Canopy\_cover + npc | -6.2 | 1.75 | 0.42 | 0.10 | 2 |
| 7 | Intercept + Isolation + npc | -6.0 | 1.96 | 0.38 | 0.09 | 3 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -5.7 | 2.25 | 0.32 | 0.08 | 3 |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -5.4 | 2.48 | 0.29 | 0.07 | 3 |
| 1 | Intercept | -3.5 | 4.41 | 0.11 | 0.03 | 9 |
|  | **Mixed species flocker** |  |  |  |  |  |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -54.2 | 0.00 | 1.00 | 0.46 |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -53.4 | 0.77 | 0.68 | 0.32 | 1 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -51.1 | 3.12 | 0.21 | 0.10 | 5 |
| 9 | Intercept + Canopy\_cover + npc | -50.8 | 3.37 | 0.19 | 0.09 | 5 |
| 4 | Intercept + Amount + Isolation + npc | -47.5 | 6.72 | 0.03 | 0.02 | 29 |
| 5 | Intercept + Amount + npc | -46.6 | 7.64 | 0.02 | 0.01 | 46 |
| 7 | Intercept + Isolation + npc | -46.1 | 8.08 | 0.02 | 0.01 | 57 |
| 2 | Intercept + npc | -44.1 | 10.07 | 0.01 | 0.00 | 154 |
| 1 | Intercept | -35.0 | 19.15 | 0.00 | 0.00 | 14400 |
|  | **Large birds** |  |  |  |  |  |
| 4 | Intercept + Amount + Isolation + npc | -35.8 | 0.00 | 1.00 | 0.33 |  |
| 5 | Intercept + Amount + npc | -35.4 | 0.42 | 0.81 | 0.27 | 1 |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -34.5 | 1.34 | 0.51 | 0.17 | 2 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -33.6 | 2.21 | 0.33 | 0.11 | 3 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -31.5 | 4.31 | 0.12 | 0.04 | 9 |
| 7 | Intercept + Isolation + npc | -31.2 | 4.64 | 0.10 | 0.03 | 10 |
| 2 | Intercept + npc | -30.5 | 5.35 | 0.07 | 0.02 | 15 |
| 9 | Intercept + Canopy\_cover + npc | -29.9 | 5.88 | 0.05 | 0.02 | 19 |
| 1 | Intercept | -23.0 | 12.78 | 0.00 | 0.00 | 596 |
|  | **Medium birds** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -118.3 | 0.00 | 1.00 | 0.72 |  |
| 4 | Intercept + Amount + Isolation + npc | -116.1 | 2.23 | 0.33 | 0.24 | 3 |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -112.1 | 6.20 | 0.05 | 0.03 | 22 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -107.7 | 10.69 | 0.00 | 0.00 | 210 |
| 5 | Intercept + Amount + npc | -107.1 | 11.26 | 0.00 | 0.00 | 279 |
| 7 | Intercept + Isolation + npc | -105.4 | 12.91 | 0.00 | 0.00 | 636 |
| 9 | Intercept + Canopy\_cover + npc | -98.4 | 19.92 | 0.00 | 0.00 | 21163 |
| 2 | Intercept + npc | -93.8 | 24.53 | 0.00 | 0.00 | 212140 |
| 1 | Intercept | -76.6 | 41.71 | 0.00 | 0.00 | 1140805011 |
|  | **Small birds** |  |  |  |  |  |
| 3 | Intercept + Amount + Isolation + Canopy\_cover + npc | -89.9 | 0.00 | 1.00 | 0.45 |  |
| 8 | Intercept + Isolation + Canopy\_cover + npc | -89.1 | 0.77 | 0.68 | 0.31 | 1 |
| 6 | Intercept + Amount + Canopy\_cover + npc | -87.6 | 2.34 | 0.31 | 0.14 | 3 |
| 9 | Intercept + Canopy\_cover + npc | -85.4 | 4.52 | 0.10 | 0.05 | 10 |
| 4 | Intercept + Amount + Isolation + npc | -84.6 | 5.30 | 0.07 | 0.03 | 14 |
| 5 | Intercept + Amount + npc | -83.5 | 6.40 | 0.04 | 0.02 | 25 |
| 7 | Intercept + Isolation + npc | -80.2 | 9.67 | 0.01 | 0.00 | 126 |
| 2 | Intercept + npc | -77.7 | 12.23 | 0.00 | 0.00 | 453 |
| 1 | Intercept | -61.1 | 28.79 | 0.00 | 0.00 | 1785127 |