Table 1 Results of linear mixed models (LMMs) of species diversity of birds with urbanization synthetic index. *P* ≤ 0.05 is marked in bold.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Diversity index | Intercept | Estimate ± SE | t | *P* |
| Shannon-Wiener diversity index | 3.8473 | -0.6969±0.2264 | -3.1510 | **0.0342** |
| Simpson diversity index | 0.9356 | -0.0322±0.0661 | -0.4880 | 0.6270 |
| Species richness | 4.6526 | -0.5872±0.2706 | -2.1700 | **0.0316** |
| Pielou evenness index | 0.4602 | 0.0073±0.0193 | 0.3780 | 0.7060 |

Table 2 Results of linear mixed models (LMMs) equivalent model average of urbanization factors on species diversity of bird (ΔAICc ≤ 2), P ≤ 0.05 is marked in bold.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Diversity index | Urbanization factors | Weight (*Wi*) | Estimate | SE | Z | *P* |
| Shannon-Wiener diversity index | Proportion of building area – 250m | 1.0000 | -0.4827 | 0.1568 | 3.7550 | **0.0002** |
|  | Environmental noise | 0.8000 | -0.0061 | 0.0030 | 2.0190 | **0.0435** |
|  | Disturbance index | 0.5000 | -0.0423 | 0.0325 | 1.3010 | 0.1934 |
|  | The distance to county center | 1.0000 | 0.0074 | 0.0027 | 2.7100 | **0.0067** |
| Simpson diversity index | Environmental noise | 0.7700 | -0.0007 | 0.0004 | 1.6570 | 0.0975 |
|  | Disturbance index | 0.3800 | -0.0060 | 0.0052 | 1.1490 | 0.2504 |
|  | The distance to county center | 0.1400 | -0.0003 | 0.0005 | 0.5590 | 0.5763 |
|  | Proportion of building area – 2000m | 0.1300 | 0.0072 | 0.0194 | 0.3740 | 0.7086 |
| Species richness | Environmental noise | 1.0000 | -0.0145 | 0.0060 | 2.4310 | **0.0150** |
|  | The distance to county center | 0.3200 | -0.0073 | 0.0067 | 1.0910 | 0.2750 |
|  | Disturbance index | 0.1900 | -0.0403 | 0.0800 | 0.5050 | 0.6140 |
| Pielou evenness index | Disturbance index | 0.2250 | 0.0081 | 0.0077 | 1.0560 | 0.2910 |
|  | Environmental noise | 0.2240 | 0.0006 | 0.0006 | 1.0540 | 02920 |
|  | Proportion of building area – 1000m | 0.1920 | 0.0237 | 0.0263 | 0.8990 | 0.3690 |