Table 1: Assess how much variance is explained by transect

Urbanization = Distance to the City Center

Model: sqrt(SLA) ~ (1 | Population/Family) + Block + Transect\_ID + City\_dist + Transect\_ID:City\_dist

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| SLA | Family:Population | 0.000 | 0.000 | 0.000 | 0.5 |
| Population | 0.271 | 0.008 | 0.976 | 0.3015 |
| Residual |  | 0.859 | 99.024 |  |

Table 2: Quantify variance explained by transect

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| SLA | Block | 23.628 | **<0.001\*\*\*** |
| Subtransect | 2.308 | 0.129 |
| Distance to City Center | 0.771 | 0.38 |
| Subtransect x Distance to City Center | 0.753 | 0.385 |

Table 3: Assess how much variance is explained by transect

Urbanization = Urbanization Score

Model: sqrt(SLA) ~ (1 | Population/Family) + Block + Transect\_ID + Urb\_score + Transect\_ID:Urb\_score

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| SLA | Family:Population | 0.00 | 0.000 | 0.000 | 0.5 |
| Population | 0.14 | 0.006 | 0.696 | 0.354 |
| Residual |  | 0.857 | 99.304 |  |

Table 4: Quantify variance explained by transect

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| SLA | Block | 24.765 | **<0.001\*\*\*** |
| Subtransect | 3.553 | 0.059 |
| Urbanization Score | 2.175 | 0.14 |
| Subtransect x Urbanization Score | 1.872 | 0.171 |