Table 1: Assess how much variance is explained by transect

Urbanization = Distance to the City Center

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

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Flower size: 2021 | Family:Population | 0.016 | 1.206 | 3.591 | 0.45 |
| Population | 1.913 | 8.929 | 26.600 | 0.0835 |
| Residual |  | 23.434 | 69.809 |  |

Table 2: Quantify variance explained by transect

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Flower size: 2021 | Block | 5.414 | 0.144 |
| Subtransect | 0.862 | 0.353 |
| Distance to City Center | 0.127 | 0.722 |
| Subtransect x Distance to City Center | 0.527 | 0.468 |

Table 3: Assess how much variance is explained by transect

Urbanization = Urbanization Score

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

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Flower size: 2021 | Family:Population | 0.000 | 0.000 | 0.000 | 0.5 |
| Population | 1.609 | 6.629 | 22.099 | 0.1025 |
| Residual |  | 23.367 | 77.901 |  |

Table 4: Quantify variance explained by transect

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Flower size: 2021 | (Intercept) | 119.875 | **<0.001\*\*\*** |
| Block | 3.947 | 0.267 |
| Subtransect | 3.058 | 0.08 |
| Urbanization Score | 6.286 | **0.012\*** |
| Subtransect x Urbanization Score | 5.195 | **0.023\*** |