Table 1: Test for variance among families and populations

Model: Liriomyza\_asclepiadis ~ Block + (1 | Population) + (1 | Population:Fam\_uniq)

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Liriomyza asclepiadis: 2021 | Family | 0.036 | 3.903 | 1.145 | 1 | 0.1425 |
| Liriomyza asclepiadis: 2021 | Population | 0.067 | 7.037 | 1.555 | 1 | 0.106 |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

Model: Liriomyza\_asclepiadis ~ Block + (1 | Population) + (1 | Population:Fam\_uniq) + City\_dist

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Liriomyza asclepiadis: 2021 | Family | 0.036 | 3.909 | 1.168 | 1 | 0.14 |
| Liriomyza asclepiadis: 2021 | Population | 0.068 | 7.087 | 1.538 | 1 | 0.1075 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Liriomyza asclepiadis: 2021 | Block | 32.700 | **<0.001\*\*\*** |
| Distance to City Center | 0.094 | 0.759 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

Model: Liriomyza\_asclepiadis ~ Block + (1 | Population) + (1 | Population:Fam\_uniq) + Urb\_score

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Liriomyza asclepiadis: 2021 | Family | 0.034 | 3.722 | 1.200 | 1 | 0.1365 |
| Liriomyza asclepiadis: 2021 | Population | 0.066 | 6.906 | 1.295 | 1 | 0.1275 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Liriomyza asclepiadis: 2021 | Block | 33.013 | **<0.001\*\*\*** |
| Urbanization Score | 0.670 | 0.413 |