Table 1: Test for variance among families and populations

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

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Liriomyza asclepiadis: 2020 | Family | 0.036 | 4.344 | **<0.001** |
| Population | 0.075 | 8.722 | 0.13 |

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 | p |
| --- | --- | --- | --- | --- |
| Liriomyza asclepiadis: 2020 | Family | 0.036 | 4.323 | **<0.001** |
| Population | 0.075 | 8.712 | 0.128 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Liriomyza asclepiadis: 2020 | Block | 83.542 | **<0.001\*\*\*** |
| Distance to City Center | 0.044 | 0.835 |

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 | p |
| --- | --- | --- | --- | --- |
| Liriomyza asclepiadis: 2020 | Family | 0.034 | 4.193 | **<0.001** |
| Population | 0.074 | 8.612 | 0.1345 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Liriomyza asclepiadis: 2020 | Block | 83.293 | **<0.001\*\*\*** |
| Urbanization Score | 0.749 | 0.387 |