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: 2021 | Family | 0.041 | 3.068 | **0.04** |
| Population | 0.093 | 6.657 | 0.125 |

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: 2021 | Family | 0.041 | 3.070 | **0.0385** |
| Population | 0.094 | 6.718 | 0.1285 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Liriomyza asclepiadis: 2021 | Block | 36.794 | **<0.001\*\*\*** |
| Distance to City Center | 0.174 | 0.677 |

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: 2021 | Family | 0.039 | 2.948 | **0.037** |
| Population | 0.092 | 6.587 | 0.151 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Liriomyza asclepiadis: 2021 | Block | 36.920 | **<0.001\*\*\*** |
| Urbanization Score | 0.694 | 0.405 |