Table 1: Test for variance among families and populations

Model: Scar\_binary ~ Block + (1 | Population) + (1 | Population:Fam\_uniq)

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Weevil Damage, binary: 2020 | Family | 0.041 | 1.216 | 0.272 | 1 | 0.301 |
| Weevil Damage, binary: 2020 | Population | 0.083 | 2.456 | 0.284 | 1 | 0.297 |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

Model: Scar\_binary ~ Block + (1 | Population) + (1 | Population:Fam\_uniq) + City\_dist

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Weevil Damage, binary: 2020 | Family | 0.040 | 1.191 | 0.280 | 1 | 0.2985 |
| Weevil Damage, binary: 2020 | Population | 0.083 | 2.453 | 0.265 | 1 | 0.3035 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Weevil Damage, binary: 2020 | Block | 9.380 | **0.025\*** |
| Distance to City Center | 0.152 | 0.697 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

Model: Scar\_binary ~ Block + (1 | Population) + (1 | Population:Fam\_uniq) + Urb\_score

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Weevil Damage, binary: 2020 | Family | 0.038 | 1.138 | 0.281 | 1 | 0.298 |
| Weevil Damage, binary: 2020 | Population | 0.081 | 2.406 | 0.236 | 1 | 0.3135 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Weevil Damage, binary: 2020 | Block | 9.370 | **0.025\*** |
| Urbanization Score | 0.606 | 0.436 |