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 | 0.040 | 1.215 | 0.270 | 1 | 0.302 |
| Population | 0.082 | 2.445 | 0.285 | 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 | 1.190 | 0.278 | 1 | 0.299 |
| Population | 0.082 | 2.442 | 0.265 | 1 | 0.3035 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Weevil Damage, binary: 2020 | Block | 9.262 | **0.026\*** |
| Distance to City Center | 0.149 | 0.7 |

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 | 1.137 | 0.278 | 1 | 0.299 |
| Population | 0.081 | 2.394 | 0.236 | 1 | 0.3135 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Weevil Damage, binary: 2020 | Block | 9.258 | **0.026\*** |
| Urbanization Score | 0.595 | 0.44 |