| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Weevil Damage, binary: 2021 | Block | 28.585 | **<0.001\*\*\*** |
| Urbanization Score | 0.045 | 0.831 |

Table 5: Quantify variance explained by urbanization

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Weevil Damage, binary: 2021 | Family | 0.023 | 0.693 | 3.499 | 1 | **0.0305** |
| Weevil Damage, binary: 2021 | Population | 0.273 | 7.658 | 0.000 | 1 | 0.5 |

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

Urbanization = Urbanization Score

Table 4: Assess how much variance is explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Weevil Damage, binary: 2021 | Block | 28.785 | **<0.001\*\*\*** |
| Distance to City Center | 0.717 | 0.397 |

Table 3: Quantify variance explained by urbanization

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Weevil Damage, binary: 2021 | Family | 0.016 | 0.477 | 3.429 | 1 | **0.032** |
| Weevil Damage, binary: 2021 | Population | 0.267 | 7.502 | 0.000 | 1 | 0.5 |

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

Urbanization = Distance to the City Center

Table 2: Assess how much variance is explained by urbanization

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Weevil Damage, binary: 2021 | Family | 0.024 | 0.737 | 3.501 | 1 | **0.0305** |
| Weevil Damage, binary: 2021 | Population | 0.274 | 7.680 | 0.000 | 1 | 0.4995 |

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

Table 1: Test for variance among families and populations