Table 1: Test for variance among families and populations

Model: log(Scar\_length\_cm) ~ Block + (1 | Population/Family)

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Family:Population | 0.000 | 0 | 0.5 |
| Population | 0.000 | 0 | 0.5 |
| Residual | 1.321 | 100 |  |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

Model: log(Scar\_length\_cm) ~ Block + (1 | Population/Family) + City\_dist

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Family:Population | 0.000 | 0 | 0.5 |
| Population | 0.000 | 0 | 0.5 |
| Residual | 1.321 | 100 |  |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Block | 12.111 | 0.007\*\* |
| Distance to City Center | 1.112 | 0.292 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

Model: log(Scar\_length\_cm) ~ Block + (1 | Population/Family) + Urb\_score

| Variable | Group | Variance | PVE | p |
| --- | --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Family:Population | 0.000 | 0 | 0.5 |
| Population | 0.000 | 0 | 0.5 |
| Residual | 1.323 | 100 |  |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Block | 12.148 | 0.007\*\* |
| Urbanization Score | 0.212 | 0.645 |