Table 1: Test for variance among families and populations

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

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Family:Population | 1.189 | 0.043 | 4.006 | 0.138 |
| Population | 1.208 | 0.023 | 2.112 | 0.136 |
| Residual |  | 1.001 | 93.882 |  |

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 | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Family:Population | 1.049 | 0.040 | 3.755 | 0.153 |
| Population | 1.232 | 0.023 | 2.128 | 0.1335 |
| Residual |  | 1.002 | 94.117 |  |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Block | 14.457 | **0.002\*\*** |
| Distance to City Center | 1.617 | 0.204 |

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 | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Family:Population | 1.095 | 0.041 | 3.839 | 0.1475 |
| Population | 1.392 | 0.024 | 2.291 | 0.119 |
| Residual |  | 1.002 | 93.870 |  |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Weevil damage, quantitative: 2021 | Block | 14.637 | **0.002\*\*** |
| Urbanization Score | 0.582 | 0.445 |