Table 1: Test for variance among families and populations

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

PVE for population: 2.456. PVE for family: 1.216

| Variable | Group | p |
| --- | --- | --- |
| Weevil Damage, binary: 2020 | Family | 0.301 |
| Population | 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:Family) + City\_dist

PVE for population: 2.453. PVE for family: 1.191

| Variable | Group | p |
| --- | --- | --- |
| Weevil Damage, binary: 2020 | Family | 0.2985 |
| Population | 0.3035 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | 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:Family) + Urb\_score

PVE for population: 2.406. PVE for family: 1.138

| Variable | Group | p |
| --- | --- | --- |
| Weevil Damage, binary: 2020 | Family | 0.298 |
| Population | 0.3135 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Weevil Damage, binary: 2020 | Block | 9.370 | **0.025\*** |
| Urbanization Score | 0.606 | 0.436 |