Table 1: Assess how much variance is explained by transect

Urbanization = Distance to the City Center

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

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Weevil damage, binary: 2021 | Family | NA | NA | 2.741 | 1 | **0.049** |
| Weevil damage, binary: 2021 | Population | 0.287 | 8.02 | 0.000 | 1 | 0.5 |

Table 2: Quantify variance explained by transect

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Weevil damage, binary: 2021 | Block | 15.461 | **0.001\*\*** |
| Subtransect | 0.159 | 0.69 |
| Distance to City Center | 3.510 | 0.061 |
| Subtransect x Distance to City Center | 0.938 | 0.333 |

Table 3: Assess how much variance is explained by transect

Urbanization = Urbanization Score

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

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Weevil damage, binary: 2021 | Family | NA | NA | 2.614 | 1 | 0.053 |
| Weevil damage, binary: 2021 | Population | 0.278 | 7.791 | 0.000 | 1 | 0.5 |

Table 4: Quantify variance explained by transect

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Weevil damage, binary: 2021 | (Intercept) | 3.057 | 0.08 |
| Block | 17.492 | **<0.001\*\*\*** |
| Subtransect | 2.694 | 0.101 |
| Urbanization Score | 2.713 | 0.1 |
| Subtransect x Urbanization Score | 4.687 | **0.03\*** |