Table 1: Assess how much variance is explained by transect

Urbanization = Distance to the City Center

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

PVE for population: 5.397. PVE for family: 2.061

| Variable | Group | p |
| --- | --- | --- |
| Weevil damage, binary: 2020 | Family | 0.135 |
| Population | 0.327 |

Table 2: Quantify variance explained by transect

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Weevil damage, binary: 2020 | Block | 6.073 | 0.108 |
| Subtransect | 0.008 | 0.93 |
| Distance to City Center | 0.021 | 0.884 |
| Subtransect x Distance to City Center | 0.042 | 0.838 |

Table 3: Assess how much variance is explained by transect

Urbanization = Urbanization Score

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

PVE for population: 5.219. PVE for family: 1.859

| Variable | Group | p |
| --- | --- | --- |
| Weevil damage, binary: 2020 | Family | 0.135 |
| Population | 0.356 |

Table 4: Quantify variance explained by transect

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Weevil damage, binary: 2020 | Block | 6.108 | 0.106 |
| Subtransect | 0.000 | 0.998 |
| Urbanization Score | 0.107 | 0.743 |
| Subtransect x Urbanization Score | 0.261 | 0.61 |