Table 1: Test for variance among families and populations

Model: Labidomera\_clivicollis ~ Block + (1 | Population) + (1 | Population:Fam\_uniq)

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Family | 0.139 | 3.118 | -0.001 | 1 | 0.5 |
| Population | NA | NA | 0.162 | 1 | 0.3435 |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

Model: Labidomera\_clivicollis ~ Block + (1 | Population) + (1 | Population:Fam\_uniq) + City\_dist

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Family | 0.136 | 3.038 | 0.000 | 1 | 0.5 |
| Population | NA | NA | 0.156 | 1 | 0.3465 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Block | 4.914 | 0.178 |
| Distance to City Center | 0.051 | 0.822 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

Model: Labidomera\_clivicollis ~ Block + (1 | Population) + (1 | Population:Fam\_uniq) + Urb\_score

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Family | 0.133 | 2.985 | 0.000 | 1 | 0.5 |
| Population | NA | NA | 0.144 | 1 | 0.352 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Block | 4.826 | 0.185 |
| Urbanization Score | 0.387 | 0.534 |