Table 1: Test for variance among families and populations

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

| Variable | Group | Variance | PVE | Ï‡2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Family | 0.272 | 5.73 | 0.000 | 1 | 0.5 |
| Population | NA | NA | 0.389 | 1 | 0.2665 |

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 | Ï‡2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Family | 0.266 | 5.612 | 0.000 | 1 | 0.5 |
| Population | NA | NA | 0.374 | 1 | 0.2705 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Block | 4.899 | 0.179 |
| Distance to City Center | 0.048 | 0.827 |

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 | Ï‡2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Family | 0.268 | 5.634 | 0.000 | 1 | 0.5 |
| Population | NA | NA | 0.358 | 1 | 0.2745 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Labidomera clivicollis: 2021 | Block | 4.813 | 0.186 |
| Urbanization Score | 0.375 | 0.54 |