Table 1: Assess how much variance is explained by transect

Urbanization = Distance to the City Center

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

| Variable | Group | Variance | PVE | Ï‡2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Labidomera clivicollis: 2020 | Family | 0.558 | 13.971 | 6.892 | 1 | **0.0045** |
| Labidomera clivicollis: 2020 | Population | 1.336 | 25.879 | 0.000 | 1 | 0.5 |

Table 2: Quantify variance explained by transect

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Labidomera clivicollis: 2020 | Block | 4.594 | 0.204 |
| Subtransect | 0.192 | 0.661 |
| Distance to City Center | 3.714 | 0.054 |
| Subtransect x Distance to City Center | 1.620 | 0.203 |

Table 3: Assess how much variance is explained by transect

Urbanization = Urbanization Score

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

| Variable | Group | Variance | PVE | Ï‡2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Labidomera clivicollis: 2020 | Family | 0.895 | 20.664 | 6.915 | 1 | **0.0045** |
| Labidomera clivicollis: 2020 | Population | 1.789 | 31.863 | 0.021 | 1 | 0.442 |

Table 4: Quantify variance explained by transect

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Labidomera clivicollis: 2020 | Block | 3.865 | 0.276 |
| Subtransect | 0.572 | 0.45 |
| Urbanization Score | 0.182 | 0.669 |
| Subtransect x Urbanization Score | 0.026 | 0.872 |