Table 1: Test for variance among families and populations

Model: Herbivory\_mean\_late\_binary ~ Block + (1 | Population) + (1 | Population:Fam\_uniq)

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Herbivory after flowering, binary: 2021 | Family | NA | NA | 0.256 | 1 | 0.3065 |
| Herbivory after flowering, binary: 2021 | Population | 0.353 | 9.699 | 0.002 | 1 | 0.4825 |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

Model: Herbivory\_mean\_late\_binary ~ Block + (1 | Population) + (1 | Population:Fam\_uniq) + City\_dist

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Herbivory after flowering, binary: 2021 | Family | NA | NA | 0.192 | 1 | 0.331 |
| Herbivory after flowering, binary: 2021 | Population | 0.318 | 8.806 | 0.002 | 1 | 0.4815 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Herbivory after flowering, binary: 2021 | Block | 8.564 | **0.036\*** |
| Distance to City Center | 2.051 | 0.152 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

Model: Herbivory\_mean\_late\_binary ~ Block + (1 | Population) + (1 | Population:Fam\_uniq) + Urb\_score

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Herbivory after flowering, binary: 2021 | Family | NA | NA | 0.178 | 1 | 0.3365 |
| Herbivory after flowering, binary: 2021 | Population | 0.299 | 8.329 | 0.002 | 1 | 0.481 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Herbivory after flowering, binary: 2021 | Block | 8.432 | **0.038\*** |
| Urbanization Score | 1.901 | 0.168 |