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: 2020 | Family | NA | NA | 0 | 1 | 0.5 |
| Herbivory after flowering, binary: 2020 | Population | NA | NA | 0 | 1 | 0.5 |

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: 2020 | Family | NA | NA | 0 | 1 | 0.5 |
| Herbivory after flowering, binary: 2020 | Population | NA | NA | 0 | 1 | 0.5 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Herbivory after flowering, binary: 2020 | Block | 12.108 | **0.007\*\*** |
| Distance to City Center | 2.621 | 0.105 |

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: 2020 | Family | NA | NA | 0 | 1 | 0.5 |
| Herbivory after flowering, binary: 2020 | Population | NA | NA | 0 | 1 | 0.5 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Herbivory after flowering, binary: 2020 | Block | 12.393 | **0.006\*\*** |
| Urbanization Score | 1.237 | 0.266 |