Table 1: Test for variance among families and populations

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

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Herbivory before flowering, binary: 2021 | Family | NA | NA | 0.001 | 1 | 0.49 |
| Herbivory before flowering, binary: 2021 | Population | 0.002 | 0.074 | 0.000 | 1 | 0.5 |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

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

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Herbivory before flowering, binary: 2021 | Family | NA | NA | 0 | 1 | 0.5 |
| Herbivory before flowering, binary: 2021 | Population | NA | NA | 0 | 1 | 0.5 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Herbivory before flowering, binary: 2021 | Block | 8.492 | **0.037\*** |
| Distance to City Center | 2.965 | 0.085 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

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

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Herbivory before flowering, binary: 2021 | Family | NA | NA | 0 | 1 | 0.5 |
| Herbivory before flowering, binary: 2021 | Population | NA | NA | 0 | 1 | 0.5 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Herbivory before flowering, binary: 2021 | Block | 8.403 | **0.038\*** |
| Urbanization Score | 0.438 | 0.508 |