| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Ramets before flowering: 2021 | Block | 84.373 | **<0.001\*\*\*** |
| Urbanization Score | 0.080 | 0.777 |

Table 5: Quantify variance explained by urbanization

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Ramets before flowering: 2021 | Family | 0.023 | 7.74 | 68.829 | 1 | **<0.001** |
| Ramets before flowering: 2021 | Population | 0.090 | 24.27 | 0.034 | 1 | 0.427 |

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

Urbanization = Urbanization Score

Table 4: Assess how much variance is explained by urbanization

| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Ramets before flowering: 2021 | Block | 84.800 | **<0.001\*\*\*** |
| Distance to City Center | 1.894 | 0.169 |

Table 3: Quantify variance explained by urbanization

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Ramets before flowering: 2021 | Family | 0.021 | 7.316 | 68.905 | 1 | **<0.001** |
| Ramets before flowering: 2021 | Population | 0.088 | 24.019 | 0.001 | 1 | 0.485 |

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

Urbanization = Distance to the City Center

Table 2: Assess how much variance is explained by urbanization

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Ramets before flowering: 2021 | Family | 0.023 | 7.755 | 68.887 | 1 | **<0.001** |
| Ramets before flowering: 2021 | Population | 0.090 | 24.281 | 0.032 | 1 | 0.429 |

Model: Ramets\_early ~ Block + (1 | Population) + (1 | Population:Fam\_uniq)

Table 1: Test for variance among families and populations