| Variable | Predictor | χ2 | p |
| --- | --- | --- | --- |
| Ramets before flowering: 2019 | Block | 9.287 | **0.026\*** |
| Urbanization Score | 1.378 | 0.24 |

Table 5: Quantify variance explained by urbanization

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Ramets before flowering: 2019 | Family | 0.022 | 4.313 | 15.696 | 1 | **<0.001** |
| Ramets before flowering: 2019 | Population | 0.078 | 13.304 | 0.000 | 1 | 0.5 |

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: 2019 | Block | 9.043 | **0.029\*** |
| Distance to City Center | 0.920 | 0.337 |

Table 3: Quantify variance explained by urbanization

| Variable | Group | Variance | PVE | χ2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Ramets before flowering: 2019 | Family | 0.023 | 4.398 | 15.717 | 1 | **<0.001** |
| Ramets before flowering: 2019 | Population | 0.079 | 13.376 | 0.001 | 1 | 0.489 |

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: 2019 | Family | 0.025 | 4.686 | 15.727 | 1 | **<0.001** |
| Ramets before flowering: 2019 | Population | 0.080 | 13.624 | 0.013 | 1 | 0.455 |

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

Table 1: Test for variance among families and populations