Table 1: Test for variance among families and populations

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

| Variable | Group | Variance | PVE | Ï‡2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Ramets before flowering: 2019 | Family | 0.024 | 4.692 | 15.222 | 1 | **<0.001** |
| Population | 0.079 | 13.614 | 0.029 | 1 | 0.432 |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

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

| Variable | Group | Variance | PVE | Ï‡2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Ramets before flowering: 2019 | Family | 0.023 | 4.403 | 15.212 | 1 | **<0.001** |
| Population | 0.077 | 13.360 | 0.007 | 1 | 0.466 |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Ramets before flowering: 2019 | Block | 8.986 | **0.029\*** |
| Distance to City Center | 0.913 | 0.339 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

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

| Variable | Group | Variance | PVE | Ï‡2 | df | p |
| --- | --- | --- | --- | --- | --- | --- |
| Ramets before flowering: 2019 | Family | 0.022 | 4.316 | 15.190 | 1 | **<0.001** |
| Population | 0.076 | 13.288 | 0.003 | 1 | 0.4775 |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Ramets before flowering: 2019 | Block | 9.239 | **0.026\*** |
| Urbanization Score | 1.365 | 0.243 |