**Table 1**: Heritable genetic variation among families and populations

*Model: Trait ~ (1 | Population/Family) + Block*

* Table 1 in individual trait word docs
* Values for last year included (e.g. relative growth rate measured 2019-2021; 2021 values are below)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Genetic variation within/among ALL** **populations** | | | | | |
| Population level | | | Family level | | |
| χ² | *p* | PVE | χ² | *p* | PVE |
| ***Growth traits*** | | | | | | |
| Height, before flowering | 0.427 | 0.257 | 1.186 | 9.561 | **0.001** | 9.227 |
| Height, after flowering | 0.776 | 0.189 | 1.442 | 5.626 | **0.009** | 6.616 |
| LDMC | 0.003 | 0.479 | 0.066 | 0 | 0.5 | 0 |
| Mortality\* |  |  |  |  |  |  |
| Ramets, before flowering\* |  |  |  |  |  |  |
| Ramets, after flowering\* |  |  |  |  |  |  |
| Relative growth rate | 0 | 0.5 | 0 | 0.073 | 0.394 | 1.051 |
| SLA | 0 | 0.5 | 0 | 0 | 0.5 | 0 |
| ***Herbivore community*** | | | | | | |
| *Danaus plexippus* abundance\* | 0 | 0.5 | NA | -0.003 | 0.5 | 0.077 |
| *Labidomera clivicollis* abundance\* | 0.162 | 0.3435 | NA | -0.001 | 0.5 | 3.118 |
| *Liriomyza asclepiadis* abundance\* | 1.326 | 0.125 | 6.657 | 3.057 | **0.04** | 3.068 |
| ***Defense traits*** | | | | | | |
| Herbivory, before flowering: Binary\* | 0 | 0.5 | 0.073 | 0.001 | 0.49 | NA |
| Herbivory, before flowering: Quantitative | 0.111 | 0.3695 | 0.625 | 0.001 | 0.491 | 0.085 |
| Herbivory, after flowering: Binary\* | 0.002 | 0.4825 | 9.699 | 0.256 | 0.3065 | NA |
| Herbivory, after flowering: Quantitative | 0 | 0.5 | 0 | 0 | 0.5 | 0 |
| Latex exudation | 4.169 | **0.0205** | 3.848 | 1.867 | 0.08 | 4.581 |
| Weevil damage: Binary\* | -0.007 | 0.5 | 6.99 | 3.135 | **0.0385** | 0.716 |
| Weevil damage: Quantitative | 0 | 0.5 | 0 | 0 | 0.5 | 0 |
| ***Reproductive traits*** | | | | | | |
| Date of first flower\* |  |  |  |  |  |  |
| Date of first follicle\* |  |  |  |  |  |  |
| Flower size |  |  |  |  |  |  |
| Flowering duration\* |  |  |  |  |  |  |
| Flowering success\* |  |  |  |  |  |  |
| Follicles\* |  |  |  |  |  |  |
| Inflorescences\* |  |  |  |  |  |  |
| Mean flowers per inflorescence\* |  |  |  |  |  |  |

*PVE = percent variance explained*

\*Variables were analyzed with generalized linear mixed models. PVE was calculated as: random effect variance/(random effect variance + residual variance) with the *get\_variance()* function from the *insight* R package. Remaining variables were analyzed with general linear mixed models and PVE was calculated as: random effect variance/(random effect variance + residual variance) with the *VarCorr()* function from the *lme4* R package.