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| **Analyses for Models Associated with Prediction 2** | | | | |
| **First model**  **larval mass ~** *milkweed spp. + ancestral vs. derived + sympatric vs. allopatric + covariates + random effects* | | | | |
| **Factor level** | **Mean mass (g)** | **Lower 95% CL** | **Upper 95% CL** | **Summary of effect** |
| Milkweed species = AINC | 0.352 | 0.275 | 0.450 | **χ² = 70.46, DF = 5,**  **p < 0.001** |
| Milkweed species = ASCU | 0.363 | 0.270 | 0.488 |
| Milkweed species = ASFA | 0.219 | 0.144 | 0.333 |
| Milkweed species = ASPEC | 0.108 | 0.075 | 0.157 |
| Milkweed species = ASYR | 0.167 | 0.131 | 0.213 |
| Milkweed species = GOPH | 0.279 | 0.231 | 0.338 |
| Monarch pop. = ancestral | 0.285 | 0.226 | 0.360 | **χ² = 10.45, DF = 1,**  **p = 0.001** |
| Monarch pop. = derived | 0.182 | 0.146 | 0.228 |
| Sym/allo = allopatric | 0.208 | 0.174 | 0.251 | **χ² = 15.74, DF = 1,**  **p < 0.001** |
| Sym/allo = sympatric | 0.249 | 0.205 | 0.302 |
| Usage = first | 0.251 | 0.209 | 0.301 | **χ² = 13.92, DF = 1,**  **p < 0.001** |
| Usage = second | 0.207 | 0.170 | 0.253 |
| Greenhouse = 86W | 0.204 | 0.167 | 0.249 | **χ² = 12.16, DF = 1,**  **p < 0.001** |
| Greenhouse = Core | 0.255 | 0.211 | 0.308 |
| Year = 2017 | 0.280 | 0.211 | 0.373 | **χ² = 6.51, DF = 1,**  **p = 0.011** |
| Year = 2018 | 0.186 | 0.153 | 0.225 |
| Plant age (days) | NA | NA | NA | **β = -0.150 ± 0.061,**  **t = -2.47, p = 0.015** |
| **Second model**  **larval mass ~** *ancestral vs. derived \* sympatric vs. allopatric + (1|Monarch population) + (1|Milkweed species) + covariates + random effects* | | | | |
| **Factor level** | **Mean mass (g)** | **Lower 95% CL** | **Upper 95% CL** | **Summary of effect** |
| ancestral pop x allopatric host | 0.274 | 0.138 | 0.543 | χ² = 0.37, DF = 1,  p = 0.545 |
| ancestral pop x sympatric host | 0.315 | 0.158 | 0.626 |
| derived pop x allopatric host | 0.170 | 0.096 | 0.299 |
| derived pop x sympatric host | 0.209 | 0.118 | 0.370 |
| Monarch pop. = ancestral | 0.293 | 0.148 | 0.582 | χ² = 2.89, DF = 1,  p = 0.089 |
| Monarch pop. = derived | 0.188 | 0.107 | 0.332 |
| Sym/allo = allopatric | 0.216 | 0.127 | 0.367 | χ² = 3.28, DF = 1,  p = 0.070 |
| Sym/allo = sympatric | 0.256 | 0.150 | 0.438 |
| Usage = first | 0.260 | 0.153 | 0.442 | **χ² = 15.13, DF = 1,**  **p < 0.001** |
| Usage = second | 0.213 | 0.124 | 0.363 |
| Greenhouse = 86W | 0.210 | 0.123 | 0.359 | **χ² = 12.23, DF = 1,**  **p < 0.001** |
| Greenhouse = Core | 0.262 | 0.154 | 0.448 |
| Year = 2017 | 0.294 | 0.168 | 0.515 | **χ² = 8.40, DF = 1,**  **p = 0.003** |
| Year = 2018 | 0.187 | 0.110 | 0.323 |
| Plant age (days) | NA | NA | NA | β = -0.118 ± 0.070,  t = -1.68, p = 0.097 |