**Table S1. Model selection results.** Candidate models differing in random effect structure were composed for the analysis of survival in response to the population type by environment type interaction (Pt x Et) and relative weight. Random effects included pool pair (i.e. the identity of the roadside-woodland pool pairing for reciprocal transplant), experimental block, full sib family and experimental unit (to address overdispersion in the model). The model with the lowest Akaike Information Criterion (AIC) by a value of 2 or more compared to any of the less-parameterized models was selected for inference. Selected models are indicated in **bold**. Model selection was conducted separately for females (both pre-breeding and post-breeding) and for males.

|  |  |  |
| --- | --- | --- |
| **Response variable ~ fixed effects** | **Random effects** | **AIC***Pre- / Post-breeding* |
| Survival ~ Pt x E­t + female relative weight | **pair + block + family + unit** | **2586.4 / 2568.8**  |
|  | pair + family + unit | 2599.5 / 2583.2 |
|  | pair + block + unit | 2588.6 / 2570.9 |
|  | pair + block + familypair + familypair + blockpair | 2712.6 / 2583.27670.0 / 7656.34789.8 / 4577.712245.5 / 12139.0 |
| Survival ~ Pt x E­t + male relative weight | pair + block + family + unit | 2582.0 / NA |
|  | **pair + family + unit** | **2583.6** / NA |
|  | pair + block + unit | 2595.9 / NA |
|  | pair + block + familypair + familypair + blockpair | 2708.4 / NA7666.6 / NA4688.2 / NA12257.4 / NA |