Plasticity - Littorina offspring

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For now, the data and results belong to the island CZA and phenotype thickness.

For each sample of population in both generations (parents and offspring), scaling was accomplished by substracting from the individual phenotype value the total mean phenotype and dividing by the total phenotype. Total meaning generation zero (parents) across all populations.

where and is the phenotype value of sample in population of the parental and offspring generations, respectively. Total mean of parents across all populations is and their total is referred as . Then, within each parental and offspring population, we calculated mean and and used these measures as input for the regression model (Table 1; Fig. 1).

Table 1. Mean and stadard deviation of scaled phenotype of parents (P) and offspring (O).

| scaled mean thickness (P) | scaled sd thickness (P) | scaled mean thickness (O) | scaled sd thickness (O) |
| --- | --- | --- | --- |
| 0.74461917 | 0.6704859 | -1.2444092 | 0.2813221 |
| 0.95585904 | 0.5828869 | -0.9659728 | 0.2312805 |
| 0.28092614 | 0.3496944 | -0.8396254 | 0.2015722 |
| 0.74273370 | 0.5506703 | -0.8070043 | 0.3403807 |
| 0.92468502 | 0.9682922 | -1.0521888 | 0.2293698 |
| 0.89533486 | 0.7133213 | -1.1795255 | 0.2319295 |
| 0.74412264 | 0.8113668 | -1.3176528 | 0.3008144 |
| 0.57124855 | 0.7019298 | -1.1512440 | 0.3094049 |
| 0.05787826 | 0.5038127 | -1.0865495 | 0.2923504 |
| -0.08231149 | 0.4180177 | -0.7201566 | 0.2315958 |
| -0.27474300 | 0.4637322 | -0.9301011 | 0.4746698 |
| -0.39377106 | 0.4460784 | -1.0289381 | 0.2524022 |
| -0.92986033 | 0.7062491 | -1.4241929 | 0.3971287 |
| -1.11957208 | 0.5139067 | -1.3768217 | 0.2236816 |
| -0.97903691 | 0.7025012 | -1.2596492 | 0.2419250 |
| -0.93335373 | 0.6337286 | -1.4030925 | 0.2387083 |
| -1.41975404 | 0.3207733 | -1.3565431 | 0.2545441 |

Mean and of scaled mean thickness (P) = -0.0126468 and 0.8229823.

Mean and of scaled mean thickness (O) = -1.1260981 and 0.221185.

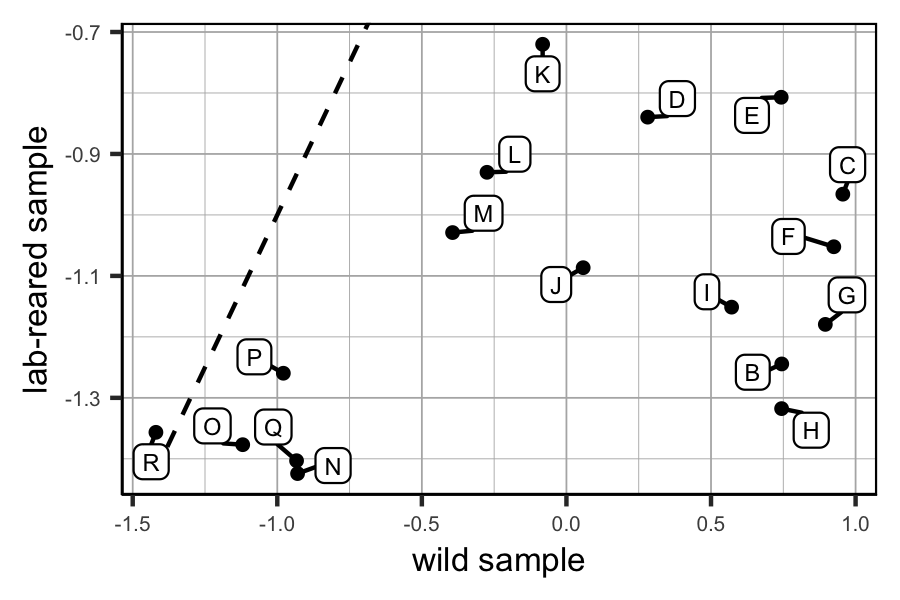


Figure 1. Scatter plot of the scaled data.

We defined a regression model with measurement error in x an y using Stan.