

## File S2

### *Analysis of egg to adult survival of the miRNA lines.*

***mir-279D and mir-317D hypomorphs*** The two Dahomey-background miRNA-hypomorph lines and their control  $w^{[Dah]}$  did not differ significantly in egg to adult survival ( $G^2 = 65.31$ ,  $F_{1,157} = 2.94$ ,  $P = 0.056$  [Dispersion parameter = 11.20]; Figure S3A).

***mir-279C and mir-317C hypomorphs*** The two  $w^{[CS]}$ -background miRNA hypomorph lines differed significantly from their control in egg to adult survival ( $G^2 = 137.82$ ,  $F_{2,117} = 19.61$ ,  $P < 0.0001$  [Dispersion parameter = 3.52]). *mir-279C* females showed the lowest egg to adult survival. Furthermore, egg-adult survival was lower in females mated to  $SP^+$  control males compared to  $SP^0$  males ( $G^2 = 25.97$ ,  $F_{1,116} = 7.39$ ,  $P = 0.008$ , interaction = ns; Figure S3B).

***mir-278D ko mir-278D ko*** females had a tendency to exhibit lower egg to adult survival than did control females ( $G^2 = 24.77$ ,  $F_{1,114} = 3.32$ ,  $P = 0.071$  [Dispersion parameter = 7.53]). This was independent of the male with which they mated ( $G^2 = 0.54$ ,  $F_{1,114} = 0.07$ ,  $P = 0.789$ , interaction = ns; Figure S3C).

***mir-184 ko mir-184 ko*** females had very low egg to adult survival (Female genotype:  $G^2 = 1140.40$ ,  $F_{1,75} = 82.31$ ,  $P < 0.0001$  [Dispersion parameter = 6.85]). Control females showed no difference in egg to adult survival according to male genotype (male x female genotype:  $G^2 = 99.76$ ,  $F_{1,74} = 14.55$ ,  $P = 0.0003$ ; male genotype:  $G^2 = 7.48$ ,  $F_{1,75} = 0.54$ ,  $P = 0.465$ ; Figure S3D).