



## Fertility [↗](#)

PLOS Genetics

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### EXTERNAL LINK

<https://doi.org/10.1371/journal.pgen.1007735>

### THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

Aw WC, Towarnicki SG, Melvin RG, Youngson NA, Garvin MR, Hu Y, Nielsen S, Thomas T, Pickford R, Bustamante S, Vila-Sanjurjo A, Smyth GK, Ballard JWO (2018) Genotype to phenotype: Diet-by-mitochondrial DNA haplotype interactions drive metabolic flexibility and organismal fitness. PLoS Genet 14(11): e1007735. doi: [10.1371/journal.pgen.1007735](https://doi.org/10.1371/journal.pgen.1007735)

### PROTOCOL STATUS

**Working**

- 1 Collect eggs from adults of both mitotypes raised on instant food
- 2 Posit eggs onto experimental diet
- 3 Collect eclosing females as virgins
- 4 Place virgins in vials containing experimental diet, with two females per vial
- 5 Add one male of each mitotype to vials containing virgin females
- 6 After 24 hours move flies to new vials
- 7 Repeat step 6
- 8 Remove all flies from vials
- 9 Allow new generation to eclose

10 Count number of eclosing adults

11 Determine fertility as number of eclosing adults per female



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