ESM.1

Supplementary material

Further details on sexual selection in *Plodia interpunctella*

ESM.2

Supplementary method

Further details on experimental protocols used in maintenance of populations, fitness assays and statistical analysis.

ESM.3

Figure S1. Experimental evolution protocols

Schematic of protocols used in maintenance of experimental evolution populations and fitness assays.

ESM.4

Figure S2. Population survival

Survival of populations experiencing increasing temperature.

ESM.5

Figure S3. Proportion eggs laid after 96 hours: increasing temperature

Female egg laying rate under increasing temperatures.

ESM.6

Figure S4. Proportion eggs laid after 96 hours: stable temperature

Female egg laying rate under stable temperatures.

ESM.7

Table S1. Population survival statistics results

Test statistics from model testing the effect of sexual selection on population survival under increasing temperatures.

ESM.8

Table S2. Increasing temperature statistics results

Tests statistics from models fitted to offspring survival, female fecundity, female longevity, male longevity and female egg laying rate data from the increasing temperature experiment.

ESM.9

Table S3. Increasing temperature statistics results

Tests statistics from models fitted to offspring survival, female fecundity, female longevity, male longevity and female egg laying rate data from the stable temperature experiment.

ESM.10

Data from increasing and stable temperature experiments.