7.3.14 *Busseola fusca* (Ong'amo et al.)

1. Development Time

Stage: Eggs Model: logit Slope: 21.93	Stage: Larvae Model: logit Slope: 9.16	Stage: Pupae Model: logit Slope: 12.69	Stage: Female Model: cloglog Slope: 3.9	Stage: Male Model: cloglog Slope: 3.57

2. Development Rate

Stage: Eggs
Model 26: Tb Model
Parameters: sy=0.049 b=0.24 Tb=7.902 DTb=3.763
Formula: $y \sim sy*e^{(b*(x-Tb)-e^{b*(x-Tb)/DTb})}$

Stage: Larvae
Model 46: Janish 1
Parameters: Dmin=47.101 Topt=26.402 K=0.166
Formula: $y \sim 2/(Dmin*(e^{K*(x-Topt)}+e^{(-K)*(x-T-opt)}))$

Stage: Pupae
Model 46: Janish 1
Parameters: Dmin=13.665 Topt=26.693 K=0.145
Formula: $y \sim 2/(Dmin*(e^{K*(x-Topt)}+e^{(-K)*(x-T-opt)}))$

3. Senescence

Stage: Female Model 26: Tb Model Parameters: sy=0.146 b=0.077 Tb=11.878 DTb=749.411 Formula: $y \sim sy*e^{(b*(x-Tb)-e^{b*(x-Tb)/DTb})}$	Stage: Male Model 26: Tb Model Parameters: sy=0.067 b=0.077 Tb=0.947 DTb=-116.608 Formula: $y \sim sy*e^{(b*(x-Tb)-e^{b*(x-Tb)/DTb})}$

4. Mortality

Stage: Eggs
Model 31: Wang 6
Parameters: Tl=16.671 Th=32.084 B=1.832 H=1.737
Formula: $y \sim 1 - H/(e^{(1+e^{-(x-Tl)/B})*(1+e^{-(Th-x)/B})})$

Stage: Larvae
Model 24: Taylor 1
Parameters: rm=0.749 Topt=25.617 Troh=7.243
Formula: $y \sim 1-rm*e^{(-0.5)*(-(x-Top)/Troh)^2}$

Stage: Pupae
Model 28: Wang 3
Parameters: Topt=25.337 Bl=2.922 Bh=1.559 H=0.023
Formula: $y \sim 1 - 1/(e^{(1+e^{-(x-Topt)/Bl})*(1+e^{-(Topt-x)/Bh})*H})$

5. Total Oviposition

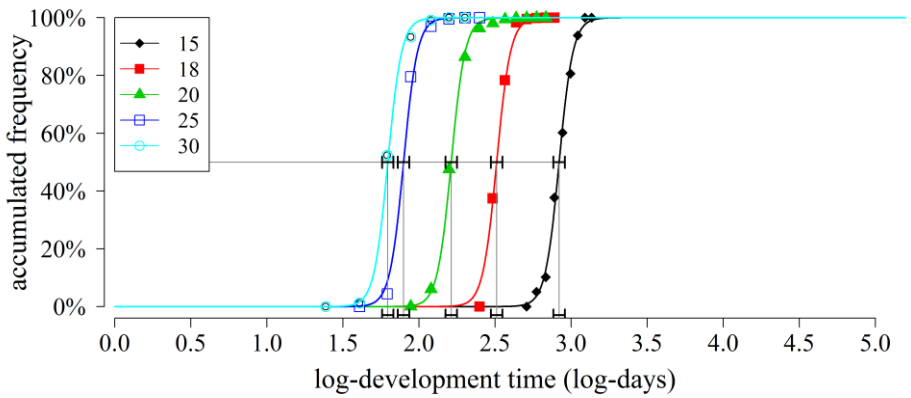
Stage: Female
Model 31: Wang 6
Parameters: Tl=20.356 Th=4.134 B=4.165 H=-96668.576
Formula: $y \sim 1 - H/(e^{(1+e^{-(x-Tl)/B})*(1+e^{-(Th-x)/B})})$

6. Relative Oviposition

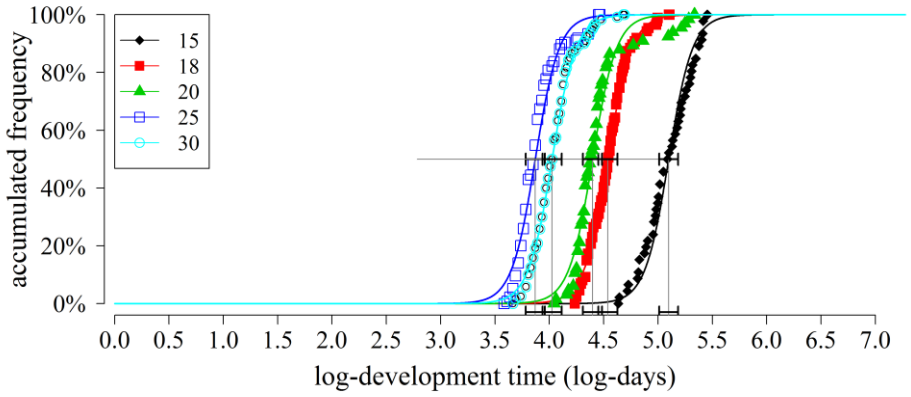
Stage: Female Model 2: Gamma Parameters: a=4.725 b=14.708 Formula: y ~ pgamma(x, a, b)

7. Development Time

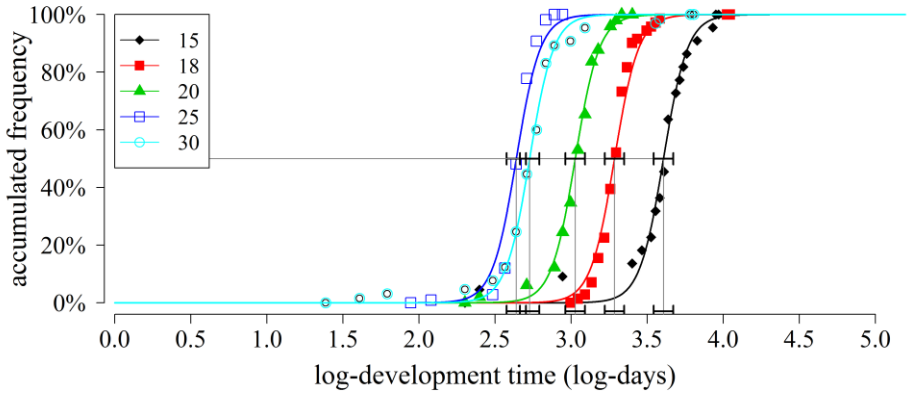
Eggs



Larvae

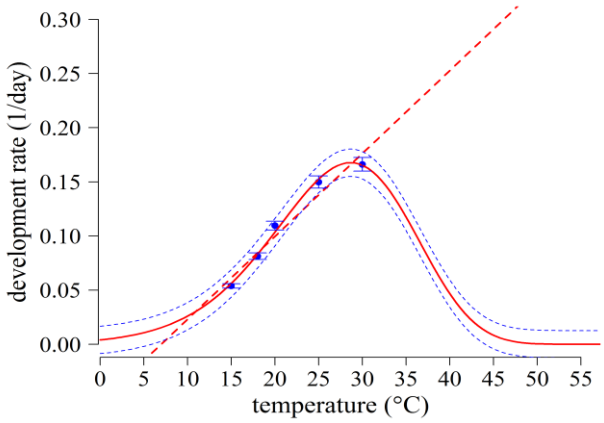


Pupae

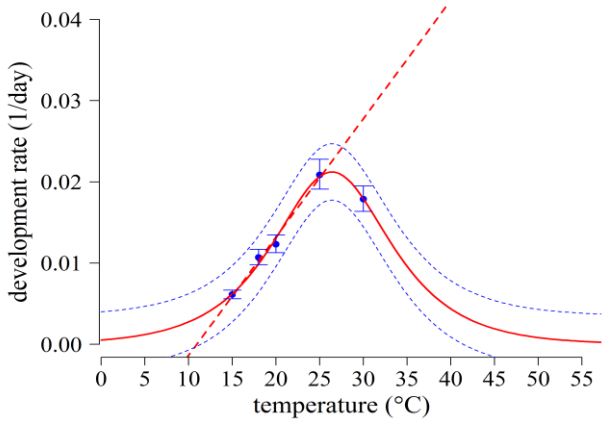


8. Development Rate

Eggs



Larvae



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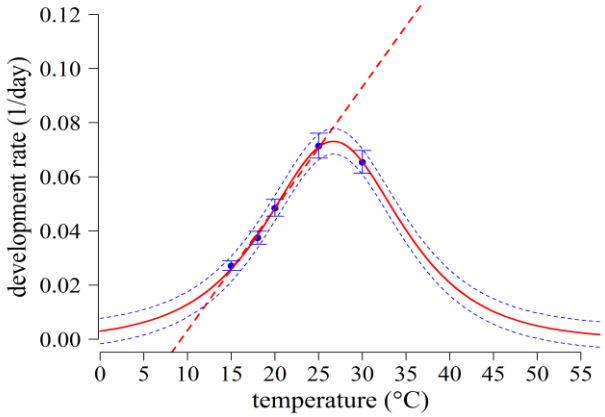
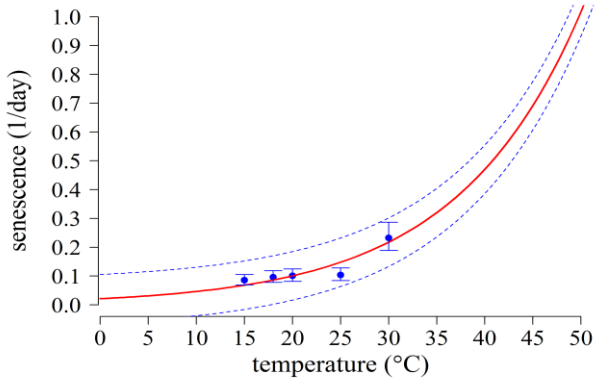
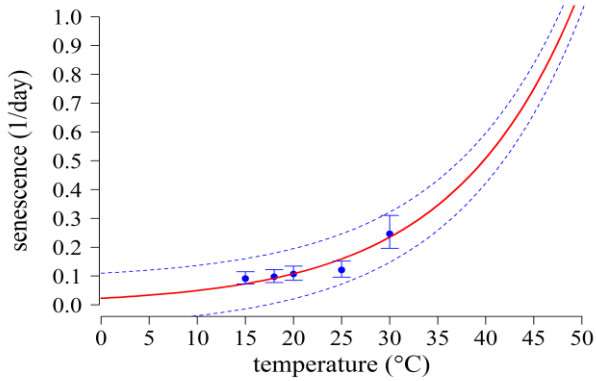


9. Senescence

Female

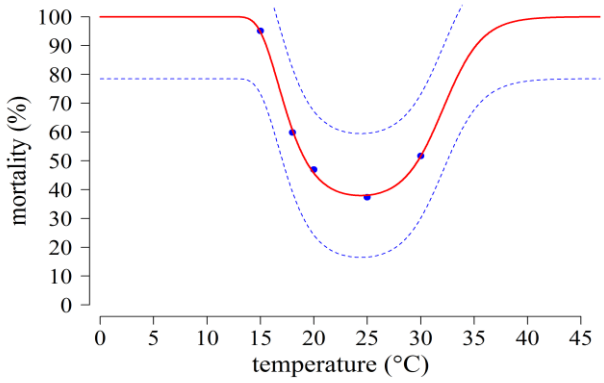


Male

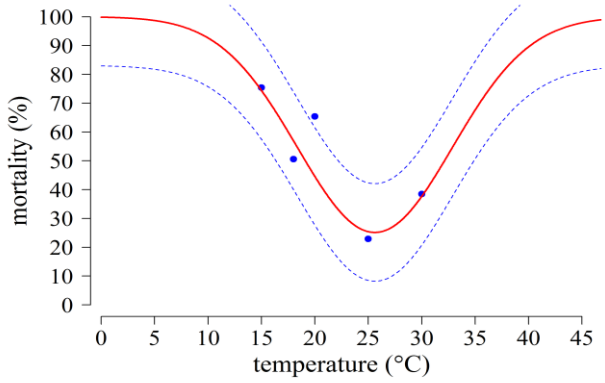


10. Mortality

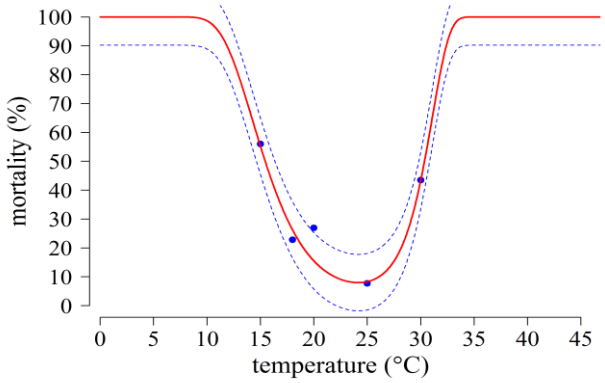
Eggs



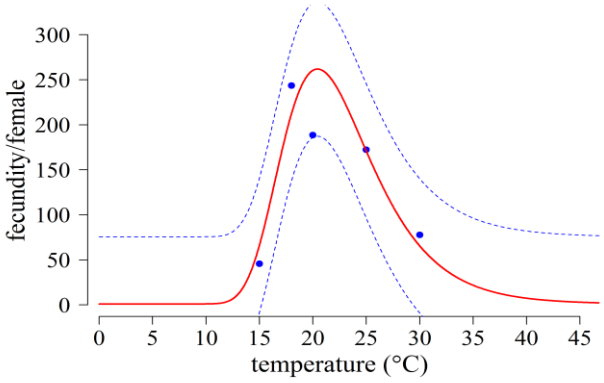
Larvae

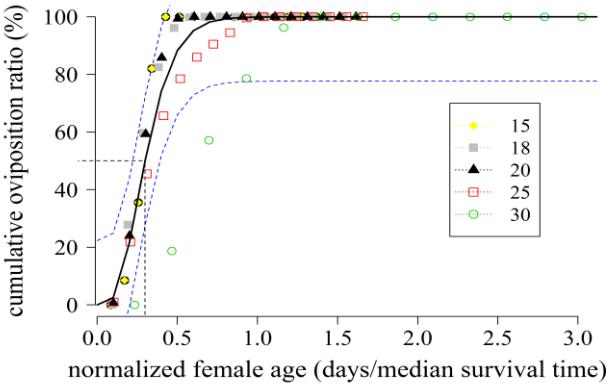


Pupae



11. Total and Relative Oviposition





12. Estimated life table parameters using deterministic simulation