7.3.12 *Trialeurodes vaporarium* (Gamarra et al.)

1. Development Time

Stage: Eggs	Stage: Nymphs	Stage: Pupae	Stage: Female	Stage: Male
Model: logit	Model: logit	Model: cloglog	Model: cloglog	Model: cloglog
Slope: 24.2	Slope: 13.91	Slope: 3.3	Slope: 1.36	Slope: 0.95

2. Development Rate

Stage: Eggs
Model 53: Logan 4
Parameters: alph=99.222 k=9262.707 b=0.153 Tmin=-0.832 Tmax=54.724 Dt=5.179
Formula: $y \sim alph * \left(1/\left(1+ k*e^{-b*(x-Tmin)}\right)-e^{(-1)*(Tmax-(x-Tmin))/Dt}\right)$

Stage: Nymphs
Model 17: Logan 1
Parameters: Y=0.036 Tmax=33.415 p=0.123 v=7.18
Formula: $y \sim Y*\left(e^{p*x} - e^{p*Tmax-(Tmax-x)/v}\right)$

Stage: Pupae
Model 26: Tb Model
Parameters: sy=0.797 b=0.206 Tb=25.385 DTb=0.698
Formula: $y \sim sy*e^{(b*(x-Tb)-e^{b*(x-Tb)/DTb})}$

3. Senescence

Stage: Female
Model 56: Hilbert & Logan 3
Parameters: trid=35890318.024 Tmax=38.567 Tmin=21.536 D=8460397577.077
Dt=0.017 Smin=0.082
Formula: $y \sim trid*\left(((x- Tmin)^2)/((x-Tmin)^2+D)-e^{-(Tmax-(x-Tmin))/Dt}\right)+Smin$

Stage: Male
Model 51: Stinner 4
Parameters: c1=154.593 c2=1.696 k1=3.037 k2=0.225 To=10.776
Formula: $y \sim c1/\left(1+e^{(k1+k2*x)} + c2/\left(1+ e^{(k1+k2*(2*To-x))}\right)\right)$

4. Mortality

Stage: Eggs
Model 39: Weibull
Parameters: a=0 b=22.085 nn=6.484
Formula: $y \sim a*(abs(x - b))^{nn}$

Stage: Nymphs
Model 12: Polynomial 2
Parameters: b1=8.134 b2=-1.067 b3=0.025
Formula: $y \sim e^{(b1 + b2*x + b3*x^2)}$

Stage: Pupae
Model 26: Wang 1
Parameters: Topt=21.416 B=2.136 H=0.022
Formula: $y \sim 1 - 1/(e^{(1+e^{-(x-Topt)/B})*(1+e^{-(Topt-x)/B})*H})$

5. Total Oviposition

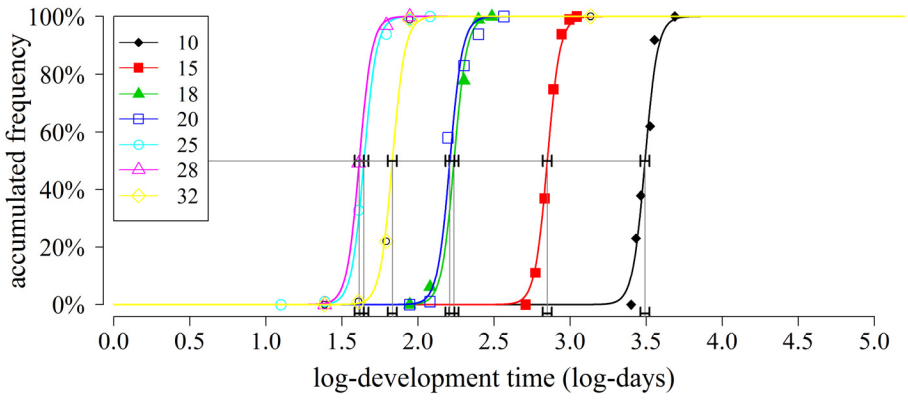
Stage: Female
Model 24: Taylor 1
Parameters: rm=-44.498 Topt=21.785 Troh=4.62
Formula: $y \sim 1-rm*e^{(-0.5)*(-(x-Top)/Troh)^2}$

6. Relative Oviposition

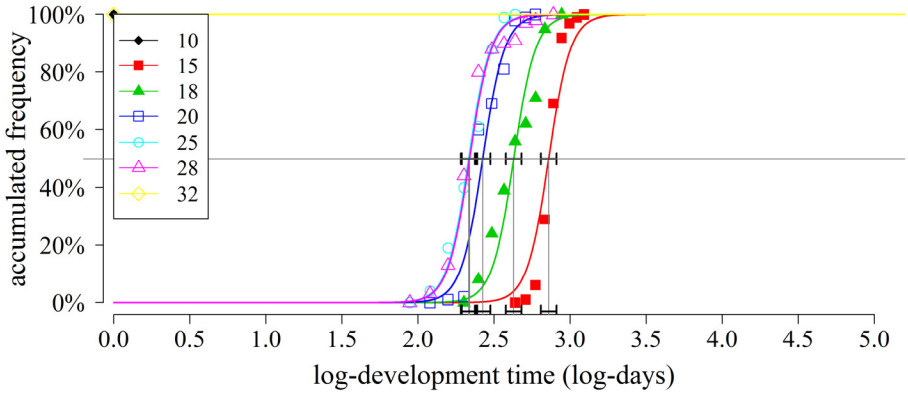
Stage: Female
Model 2: Gamma
Parameters: a=1.577 b=0.509
Formula: $y \sim pgamma(x, a, b)$

7. Development Time

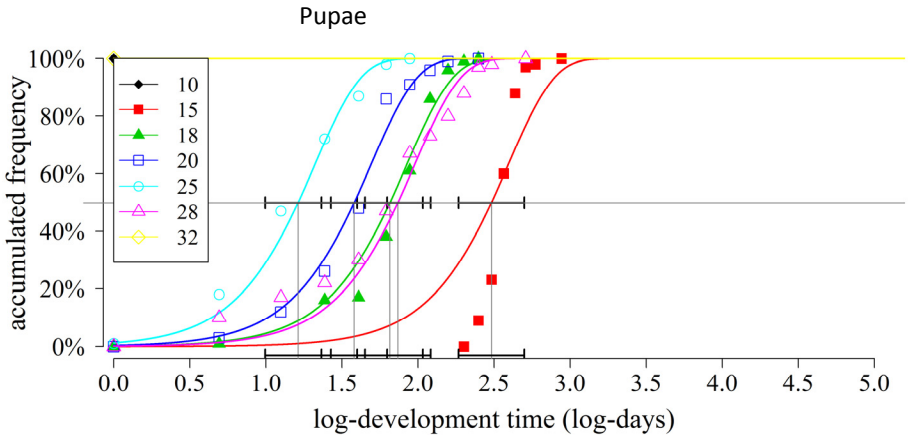
Eggs



Larvae

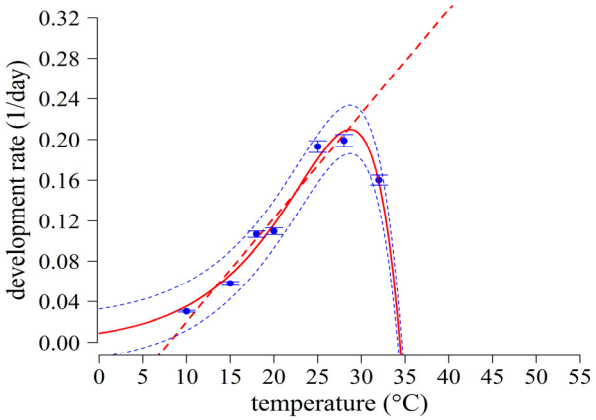


Pupae

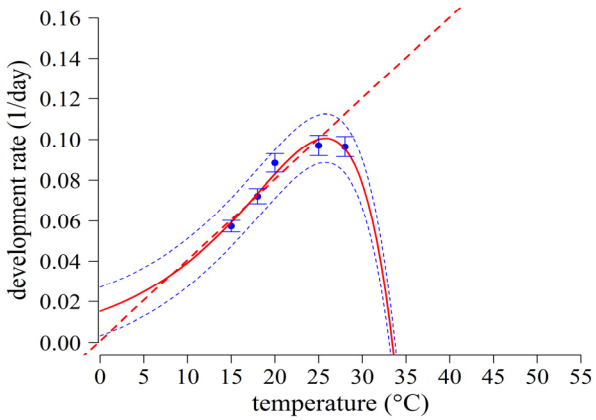


8. Development Rate

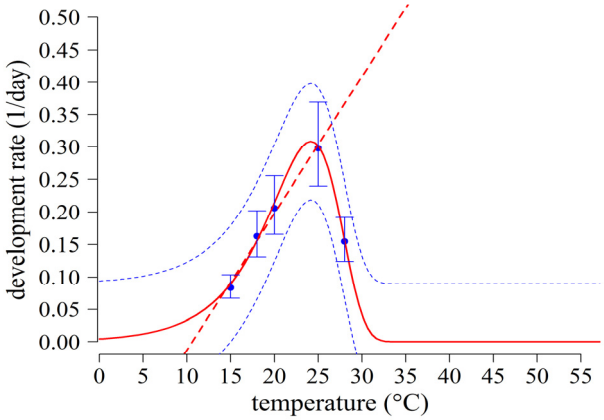
Eggs



Larvae

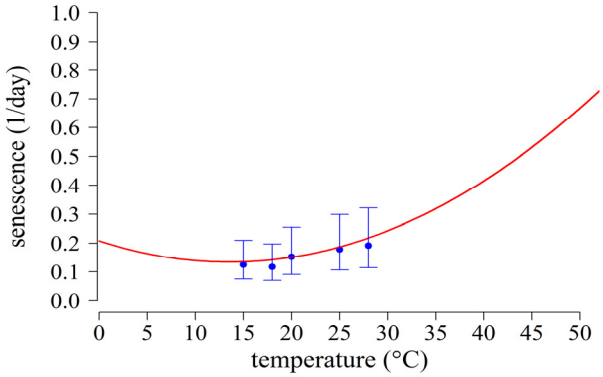


Pupae

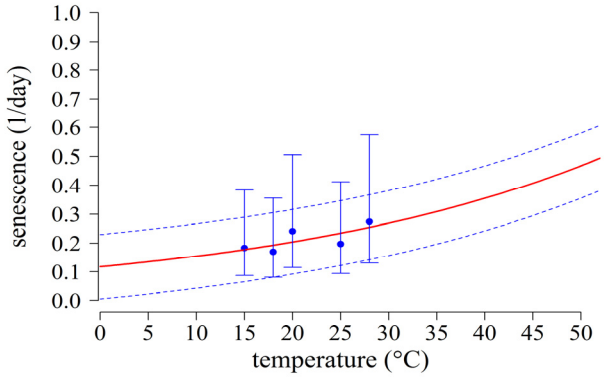


9. Senescence

Female

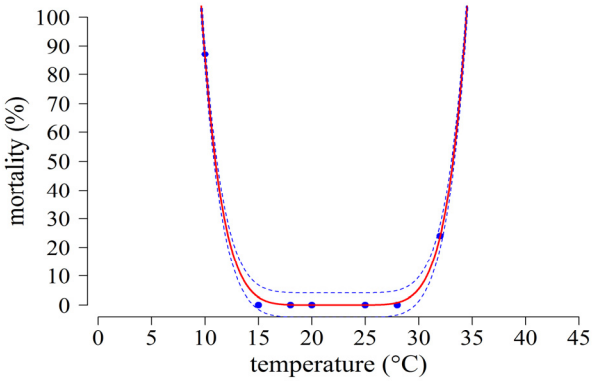


Male

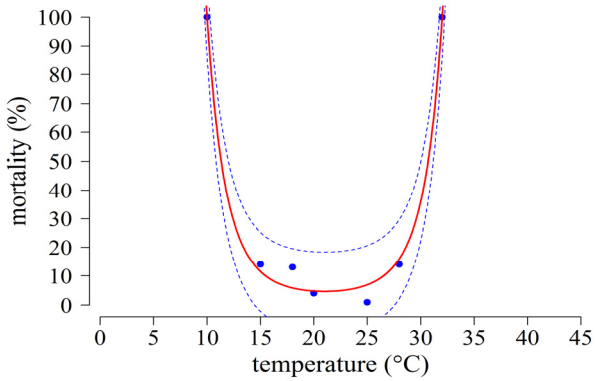


10. Mortality

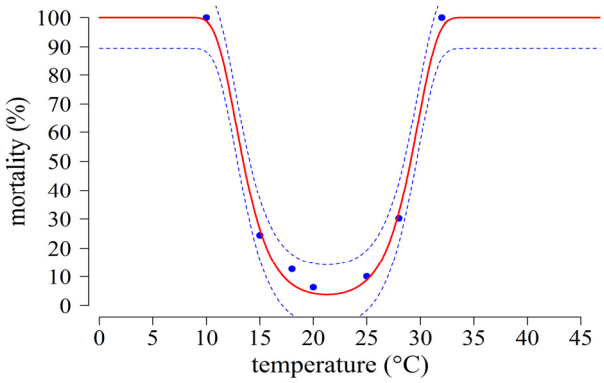
Eggs



Larvae

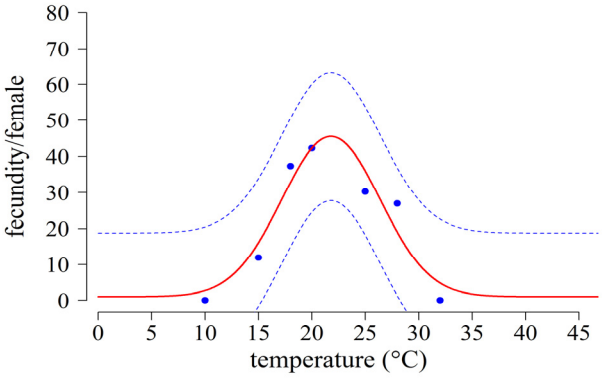


Pupae

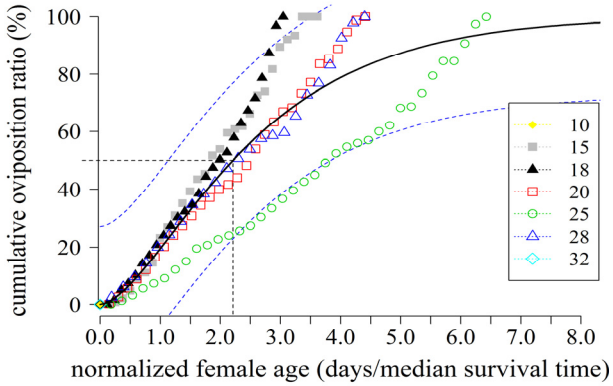


11. Total and Relative Oviposition

Female



Male



12. Estimated life table parameters using deterministic simulation