7.3.3 *Symmestrichema tangolias* (Sporleder et al.)

1. Development Time

Stage: Eggs	Stage: Larvae	Stage: Pupae	Stage: Female	Stage: Male
Model: logit	Model: logit	Model: logit	Model: cloglog	Model: cloglog
Slope: 16.9	Slope: 19.32	Slope: 25.7	Slope: 3.53	Slope: 3.52

2. Development Rate

Stage: Eggs Model 26: Tb Model Parameters: sy=0.476 b=0.099 Tb=34.592 DTb=0.027 Formula: $y \sim sy*e^{(b*(x-Tb)-e^{b*(x-Tb)/DTb})}$
Stage: Larvae Model 26: Tb Model Parameters: sy=0.011 b=0.223 Tb=3.996 DTb=3.944 Formula: $y \sim sy*e^{(b*(x-Tb)-e^{b*(x-Tb)/DTb})}$
Stage: Pupae Model 46: Janish 1 Parameters: Dmin=7.792 Topt=29.751 K=0.138 Formula: $y \sim 2/(Dmin*(e^{K*(x-Topt)}+e^{(-K)*(x-T-opt)}))$

3. Senescence

Stage: Female Model 50: Stinner 3 Parameters: c1=1.927 k1=4.507 k2=-0.046 Formula: $y \sim c1/(1+e^{(k1+k2*x)})$
Stage: Male Model 50: Stinner 3 Parameters: c1=1.637 k1=4.472 k2=-0.055 Formula: $y \sim c1/(1+e^{(k1+k2*x)})$

4. Mortality

Stage: Eggs Model 26: Wang 1 Parameters: Topt=14.824 B=5.633 H=0.039 Formula: $y \sim 1 - 1/(e^{(1+e^{-(x-Topt)/B})*(1+e^{-(Topt-x)/B})*H})$
Stage: Larvae Model 30: Wang 5 Parameters: Topt=13.09 B=7.11 H=9.872 Formula: $y \sim 1 - H/(e^{(1+e^{-(x-Topt)/B})*(1+e^{-(Topt-x)/B})})$
Stage: Pupae Model 26: Wang 1 Parameters: Topt=17.484 B=4.596 H=0.043 Formula: $y \sim 1 - 1/(e^{(1+e^{-(x-Topt)/B})*(1+e^{-(Topt-x)/B})*H})$

5. Total Oviposition

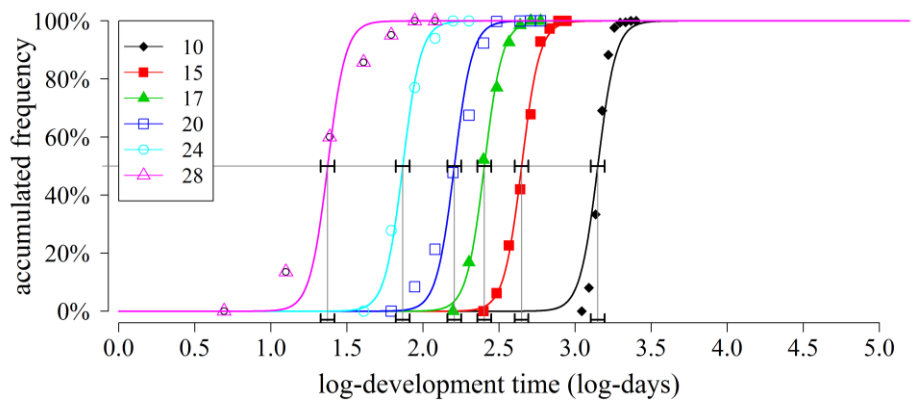
Stage: Female
Model 24: Taylor 1
Parameters: rm=-117.016 Topt=16.38 Troh=7.199
Formula: $y \sim 1\text{-}rm*e^{(-0.5)*(-(x-Top)/Troh)^2}$

6. Relative Oviposition

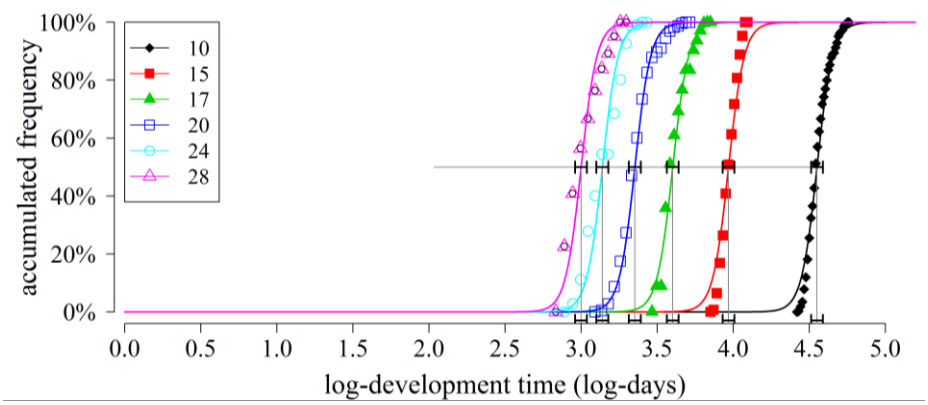
Stage: Female
Model 2: Gamma
Parameters: a=2.723 b=5.247
Formula: y ~ pgamma(x, a, b)

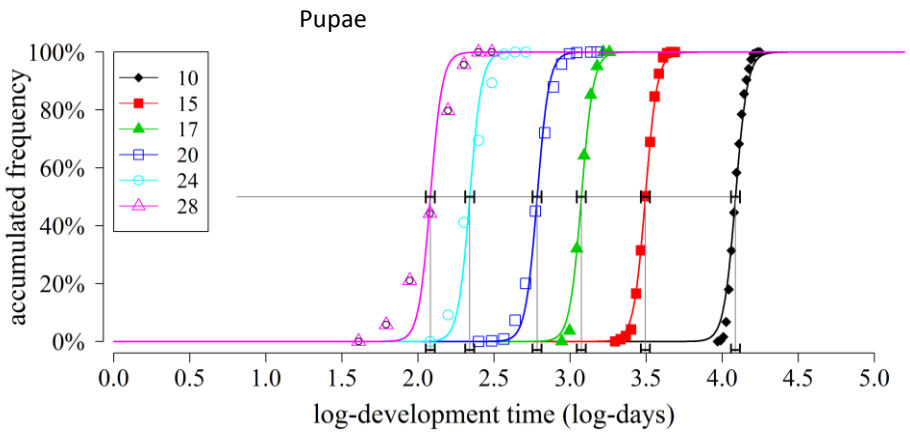
7. Development Time

Eggs

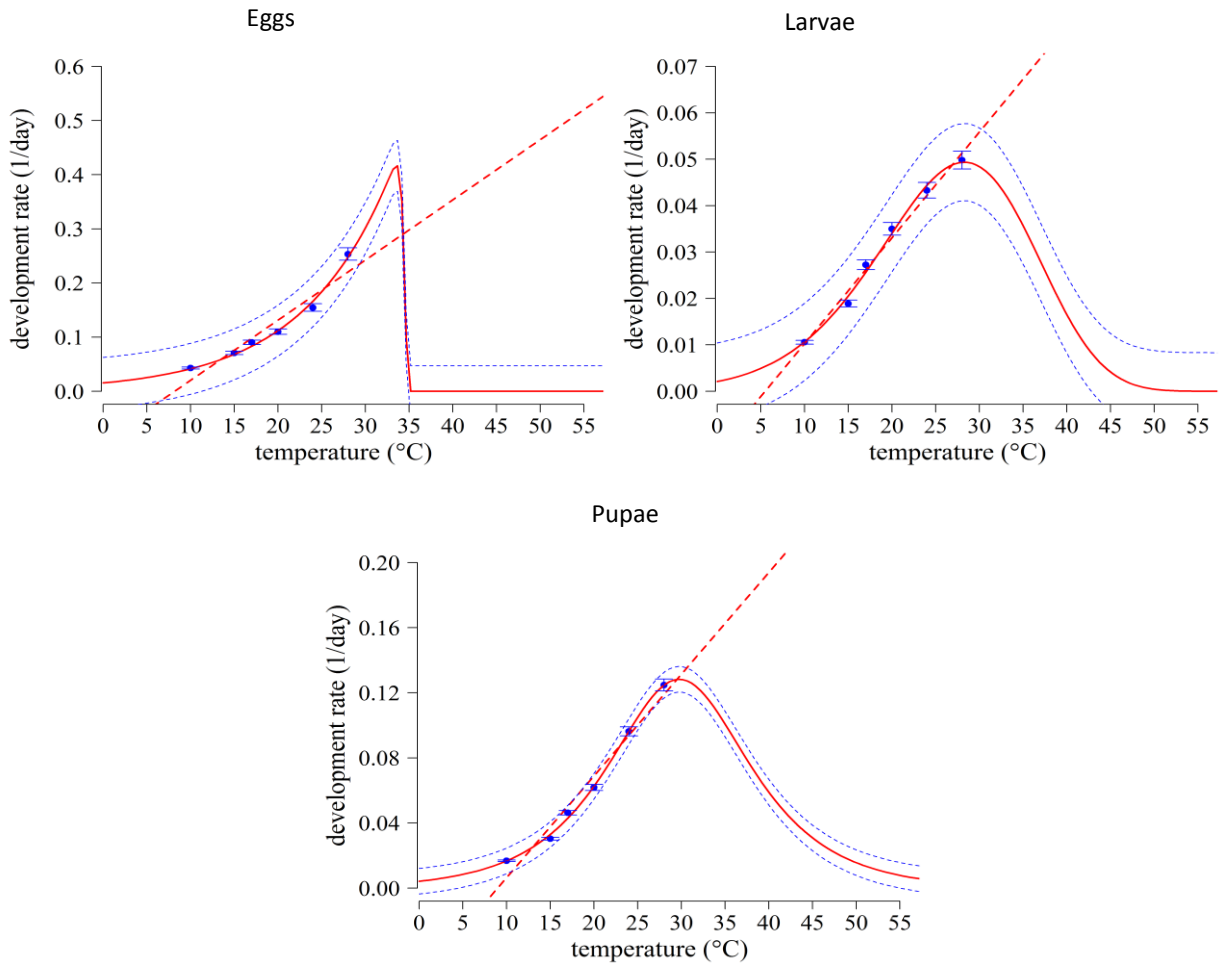


Larvae



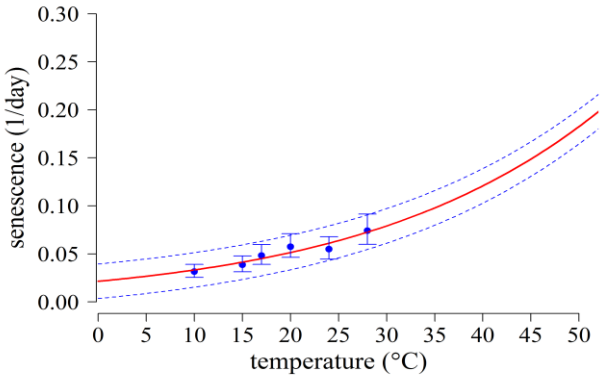


8. Development Rate

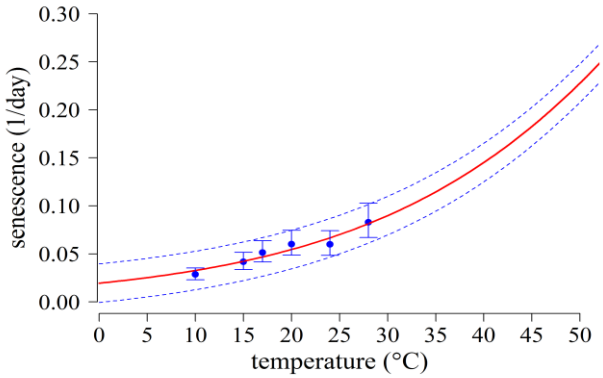


9. Senescence

Female

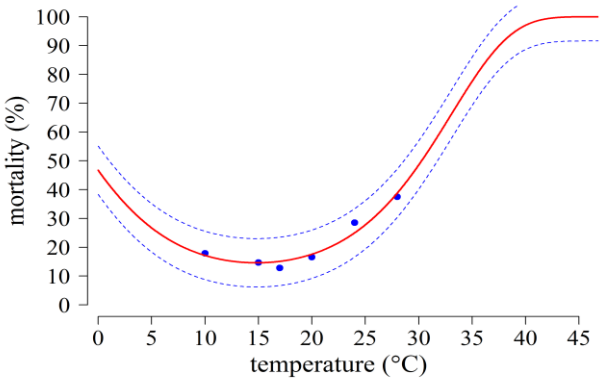


Male

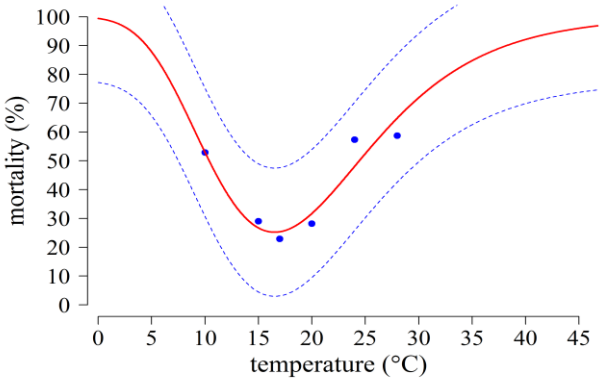


10. Mortality

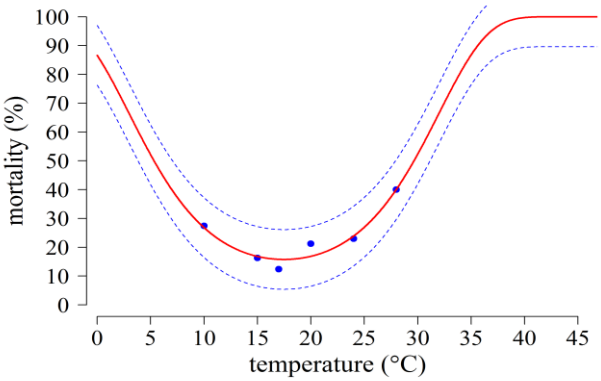
Eggs



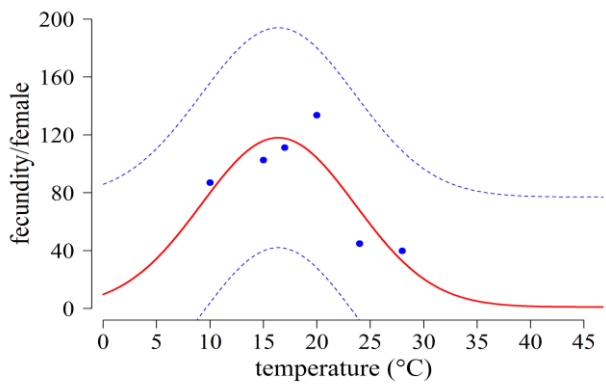
Larvae

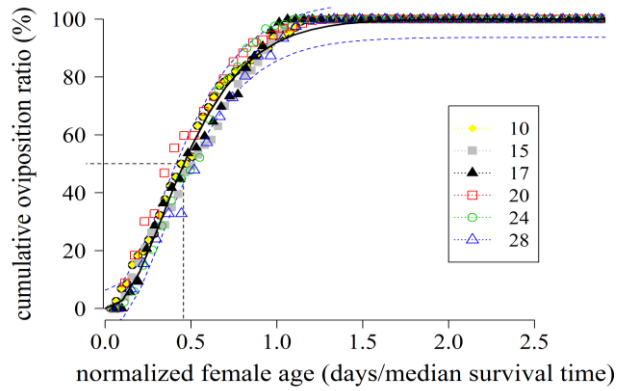


Pupae



11. Total and Relative Oviposition





12. Estimated life table parameters using deterministic simulation