

Effects of variability among individuals on zooplankton population dynamics under environmental conditions

Rujia Bi*, Hui Liu

*Corresponding author: rbi@vt.edu

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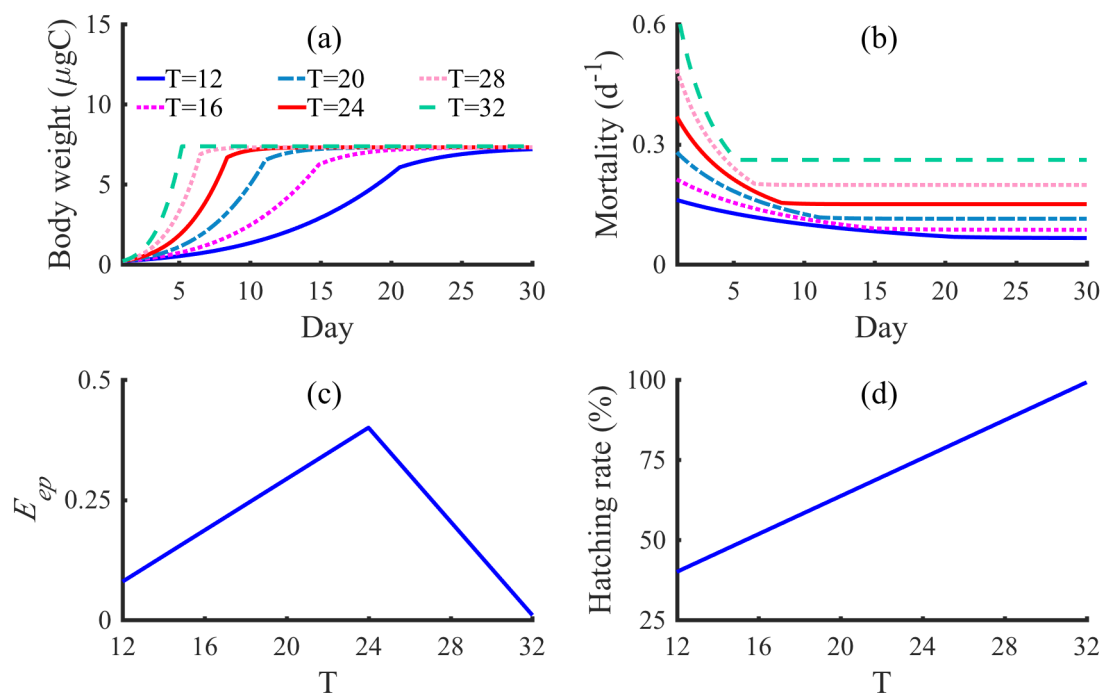


Fig. S1. Experiment 1: a typical simulation showing (a) daily growth of body weight of an individual, (b) daily mortality of an individual, (c) transformation efficiency between gonad weight and eggs (E_{ep}), and (d) hatching rate under different temperature levels. Simulation was performed under favorable food concentration ($800 \mu\text{gC L}^{-1}$) and favorable salinity (35). The simulated individual was assigned mean values of the four physiological traits ($I_{max} = 1.209$, $\alpha = 0.00675$, $\beta_1 = 0.132$, $\beta_2 = 0.132$, see Table 1 for the definition of the four traits). T = temperature ($^{\circ}\text{C}$).

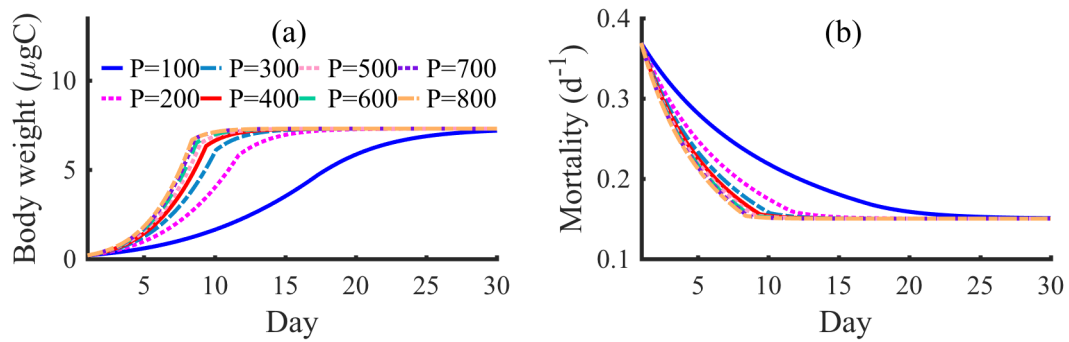


Fig. S2. Experiment 2: a typical simulation showing (a) daily growth of body weight of an individual, (b) daily mortality of an individual under different food concentration levels. Simulation was performed under favorable temperature (24 °C) and favorable salinity (35). The simulated individual was assigned mean values of the four physiological traits ($I_{max} = 1.209$, $\alpha = 0.00675$, $\beta_1 = 0.132$, $\beta_2 = 0.132$, see Table 1 for the definition of the four traits). P = food concentration ($\mu\text{gC L}^{-1}$).

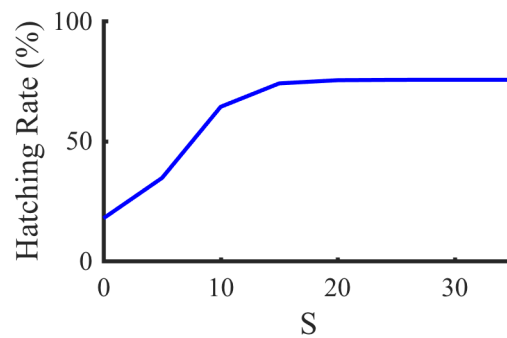


Fig. S3. Experiment 3: a typical simulation showing hatching rate under different salinity levels. Simulation was performed under favorable temperature (24 °C) and favorable food concentration (800 $\mu\text{gC L}^{-1}$). The simulated individual was assigned mean values of the four physiological traits ($I_{max} = 1.209$, $\alpha = 0.00675$, $\beta_1 = 0.132$, $\beta_2 = 0.132$, see Table 1 for the definition of the four traits). S = salinity.