

## 1 2 species, no habitat loss.

These figures show results from fitting GLV model to 2 species IBM simulations.

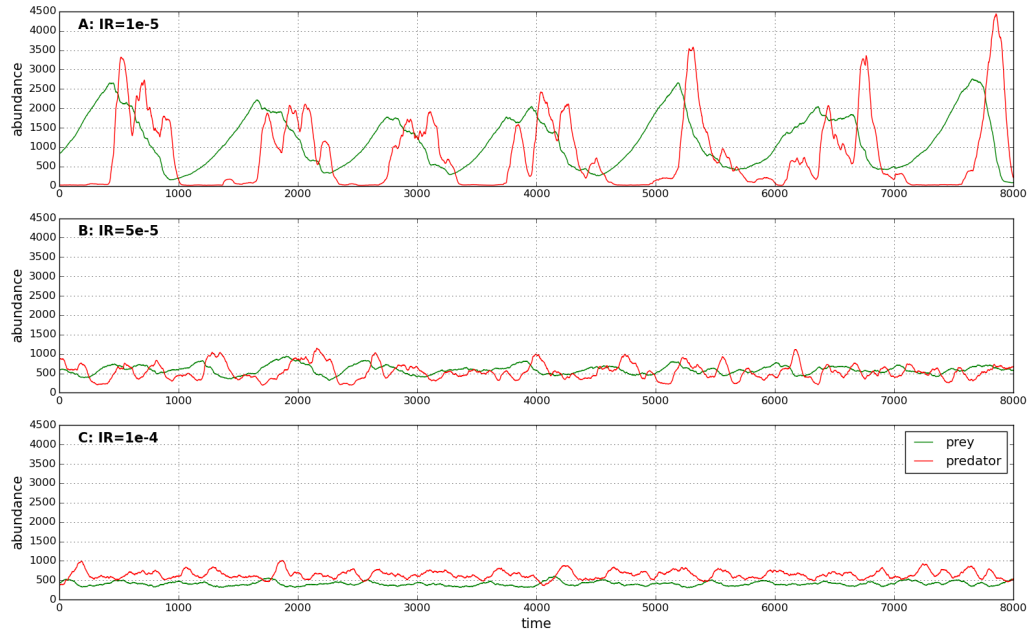


Figure 1: Example dynamics of three simulation runs with different IR. Initial transience removed.

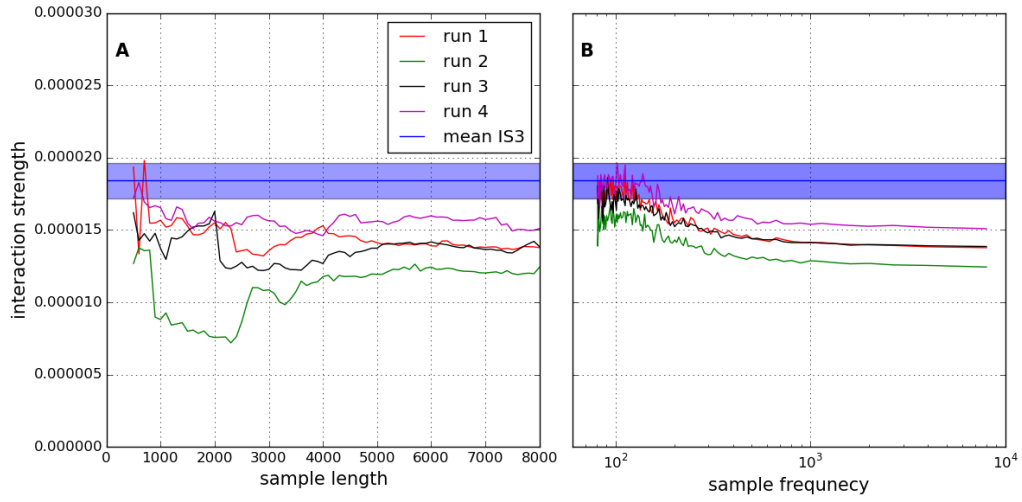


Figure 2: Convergence of estimator  $\hat{J}_{01}$ . High IR (0.0001).

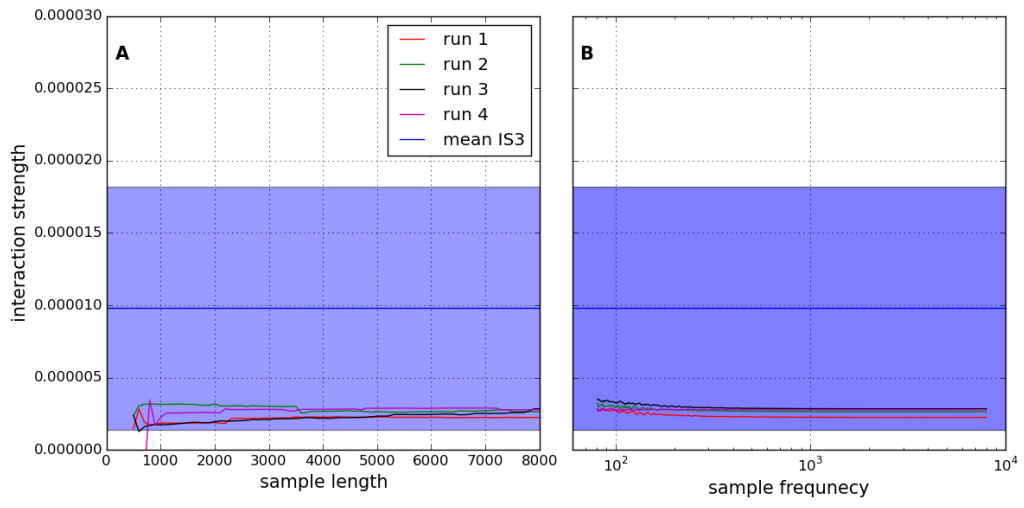


Figure 3: Convergence of estimator  $\hat{J}_{01}$ . Low IR (0.00001).

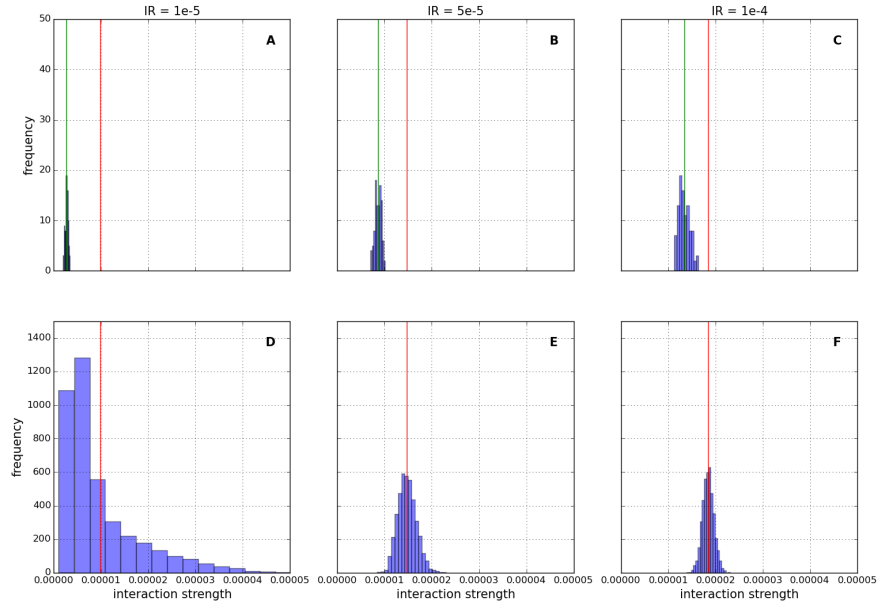


Figure 4: Distribution of prey interaction strengths for three ensembles of simulations at different IR. Top row: estimates produced by fitting GLV model. Bottom row: Estimates produced by counting number of prey consumed.

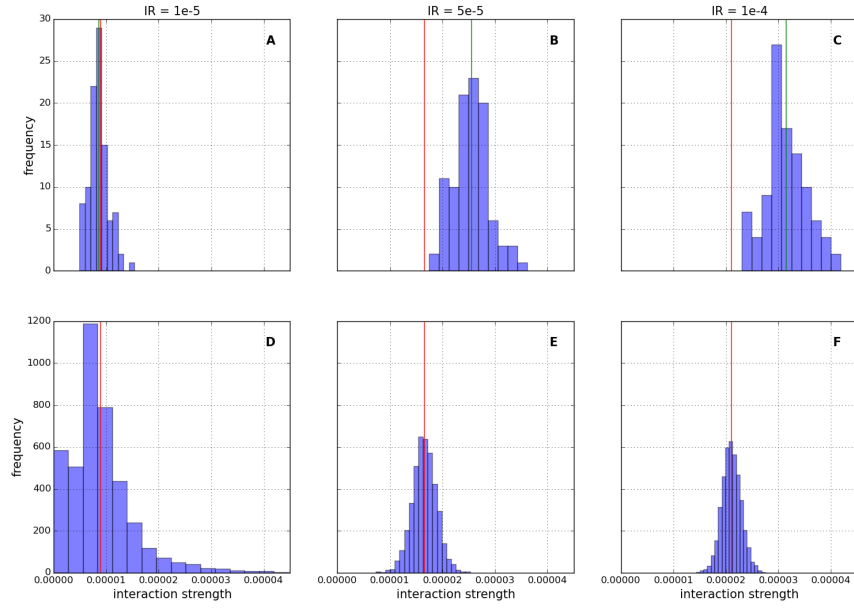


Figure 5: Distribution of predator interaction strengths for three ensembles of simulations at different IR. Top row: estimates produced by fitting GLV model. Bottom row: Estimates produced by counting number of predators born.

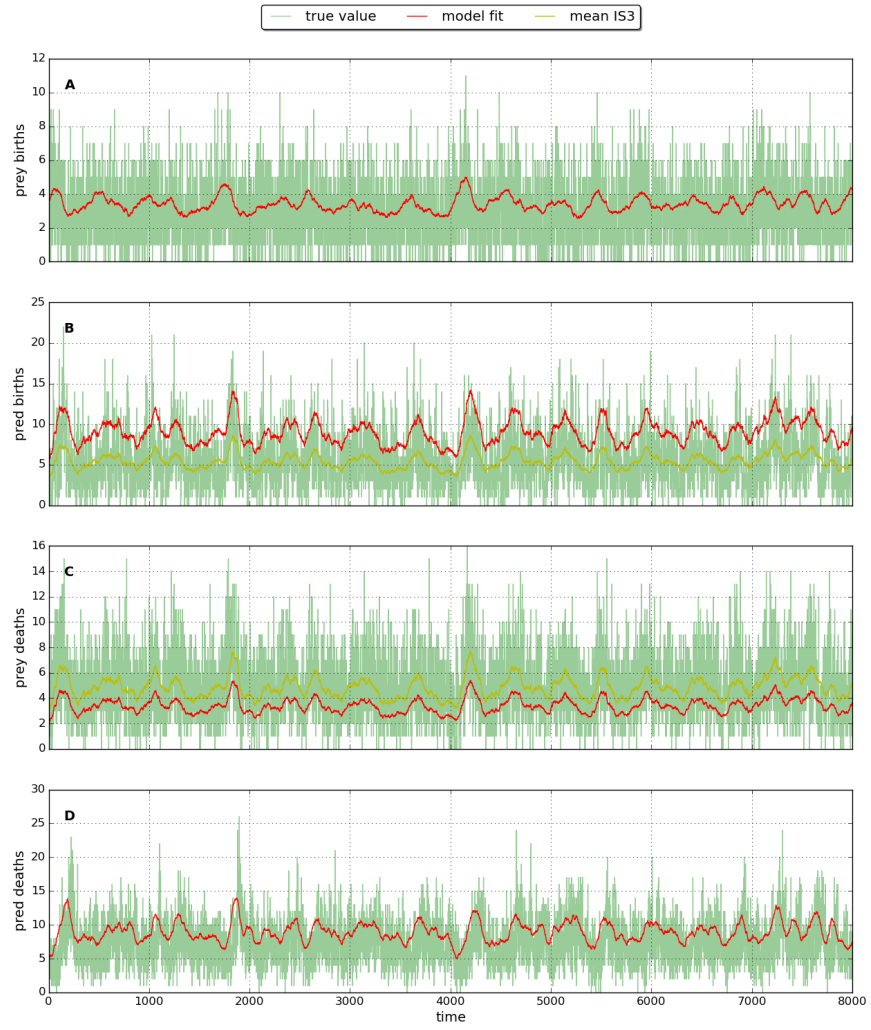


Figure 6: Comparing actual births and death rates to those predicted by the fitted model. Single simulation run, high IR (0.0001)

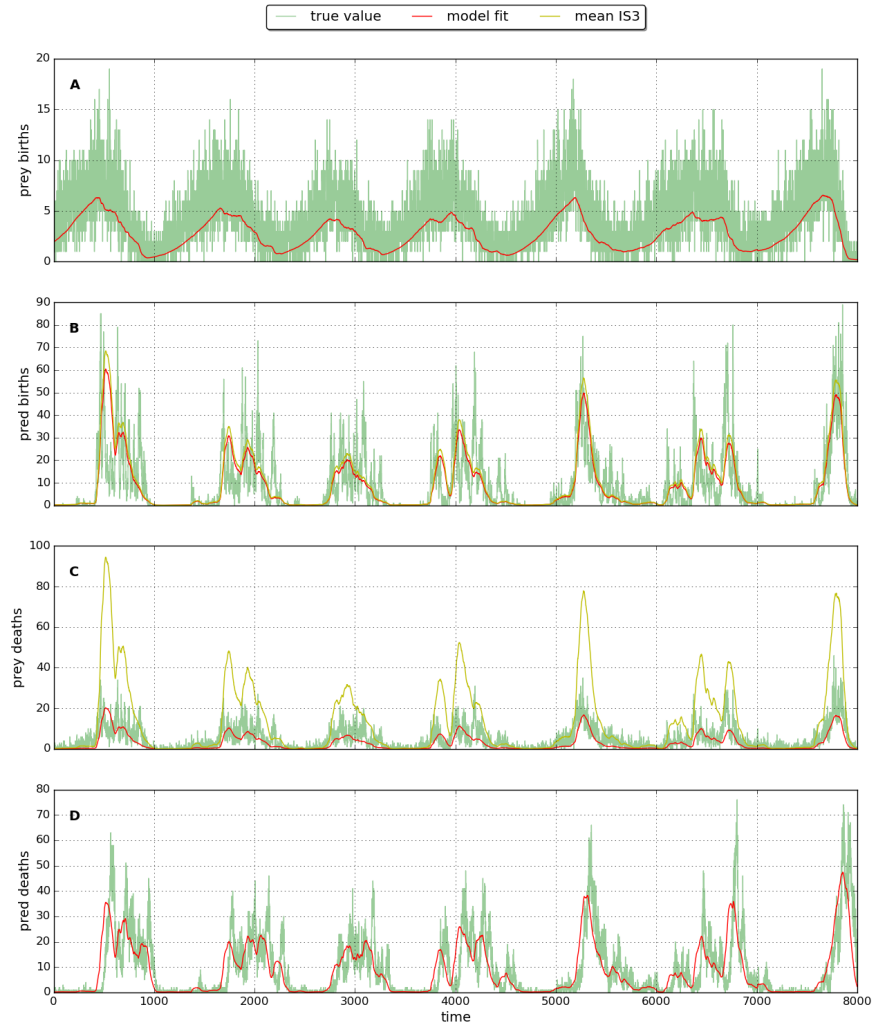


Figure 7: Comparing actual births and death rates to those predicted by the fitted model. Single simulation run, low IR (0.00001)

**2    2 species, with habitat loss.**



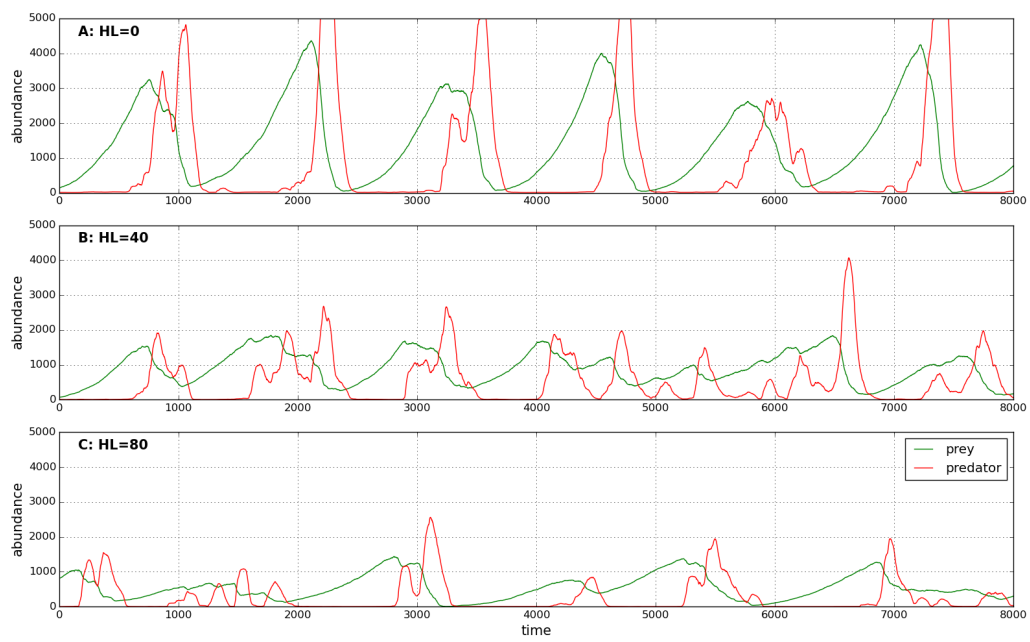


Figure 8: Example dynamics of three simulation runs with different levels of contiguous HL. Initial transience removed.

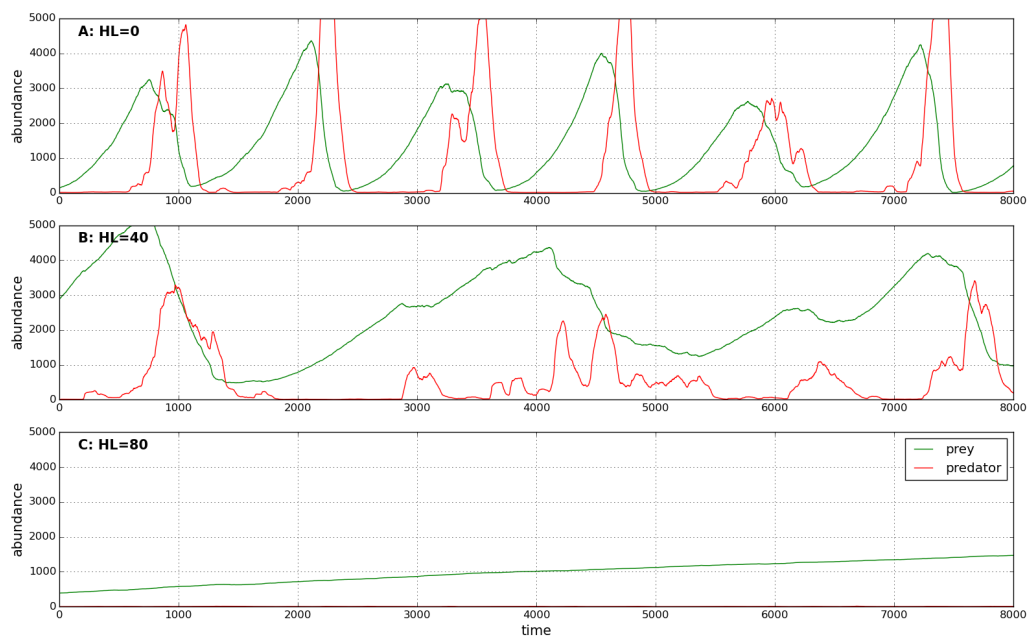


Figure 9: Example dynamics of three simulation runs with different levels of random HL. Initial transience removed.