Chimeras with time-dependent migration rates

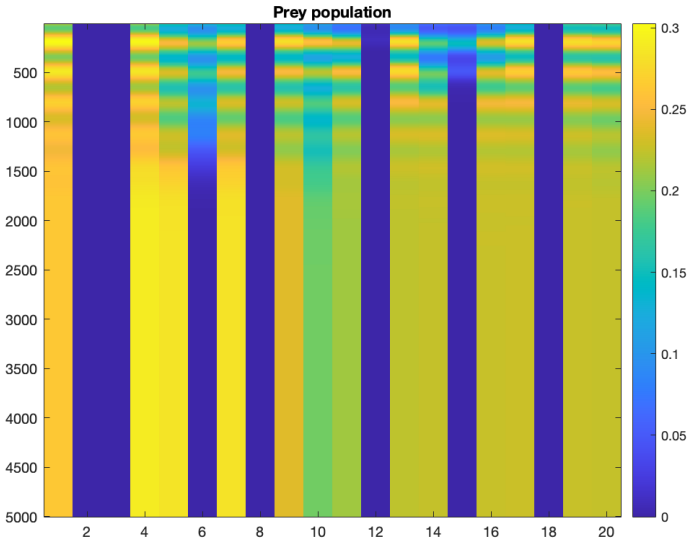

Figure 1: No time dependence of migration coefficient σ, 20 node chain.

1 Oscillatory Migration

Exploring oscillations over several orders of magnitude of speed

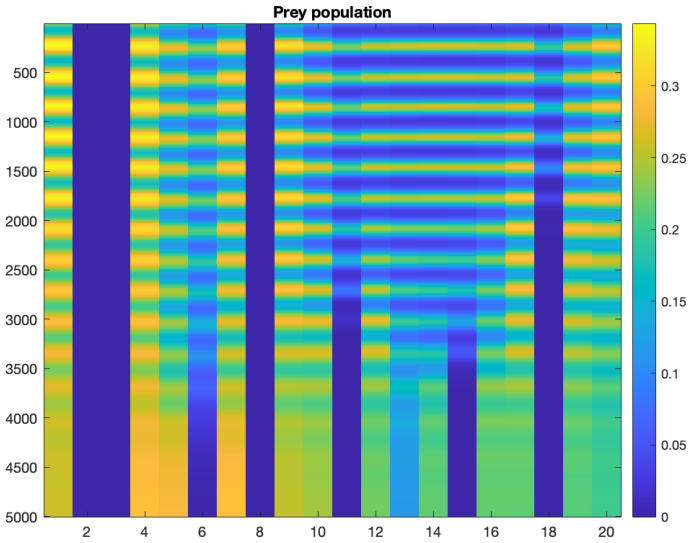

Figure 2: Migration oscillates in time, $\sigma = \|cos(t)\|$

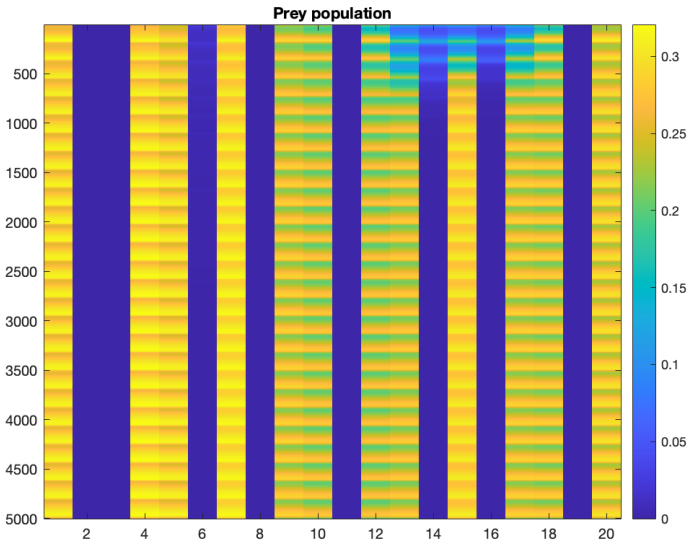

Figure 3: Migration oscillates in time, $\sigma = \|cos(t/10)\|$

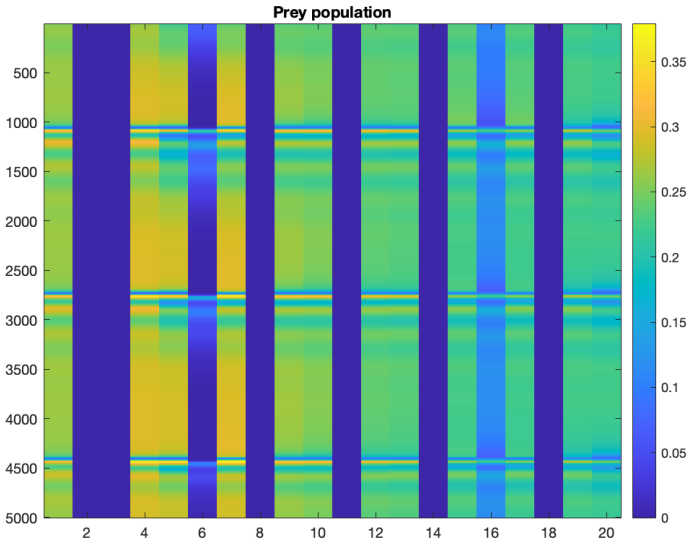

Figure 4: Migration oscillates in time, $\sigma = \|cos(t/100)\|$

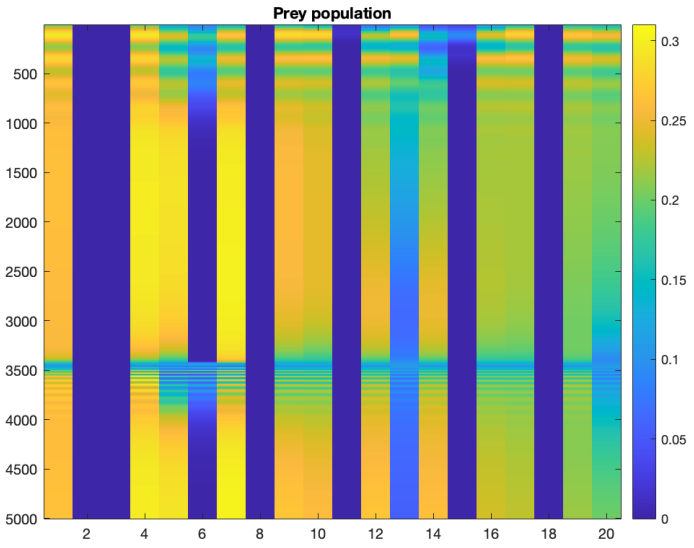

Figure 5: Migration oscillates in time, $\sigma = \|cos(t/1000)\|$

2 Increasing Migration Rates

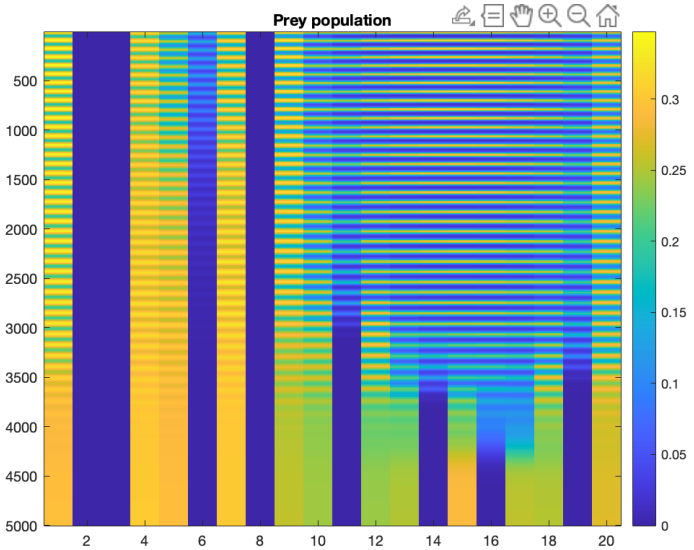

Figure 6: Migration increases linearly in time, $\sigma = \frac{t}{t_{final}}$

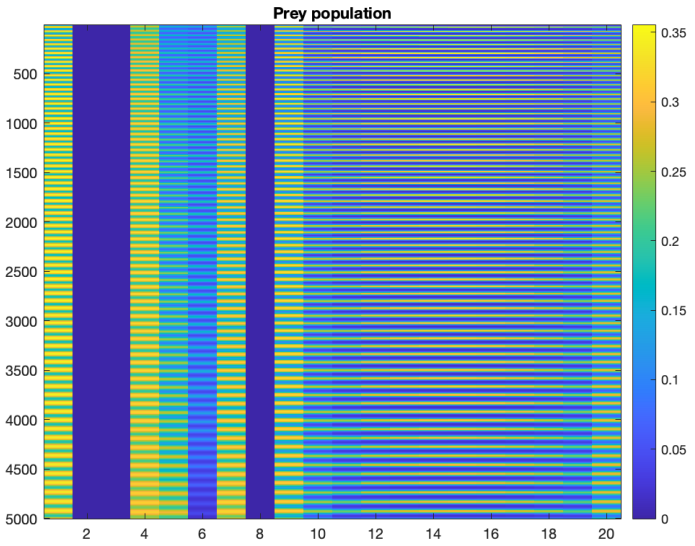

Figure 7: Migration increases quadratically with time, $\sigma = (\frac{t}{t_{final}})^2$

3 Decreasing Migration Rates

3.1 Polynomial rates of decay

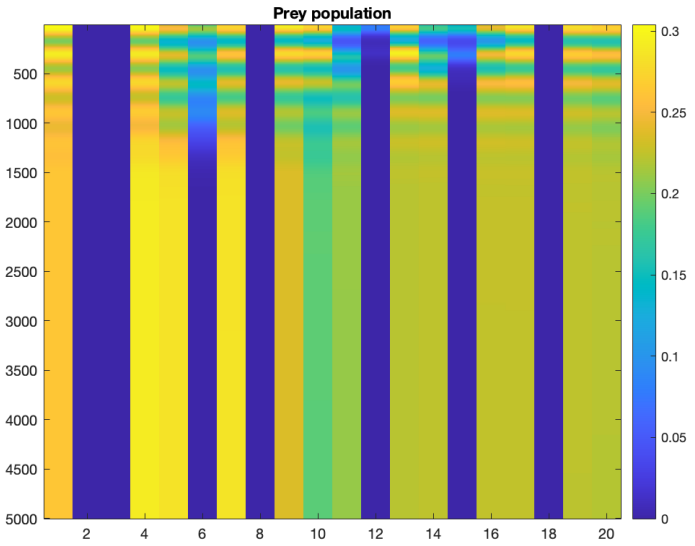

Figure 8: Migration decays linearly in time, $\sigma = \frac{(t_{final}-t)}{t_{final}}$

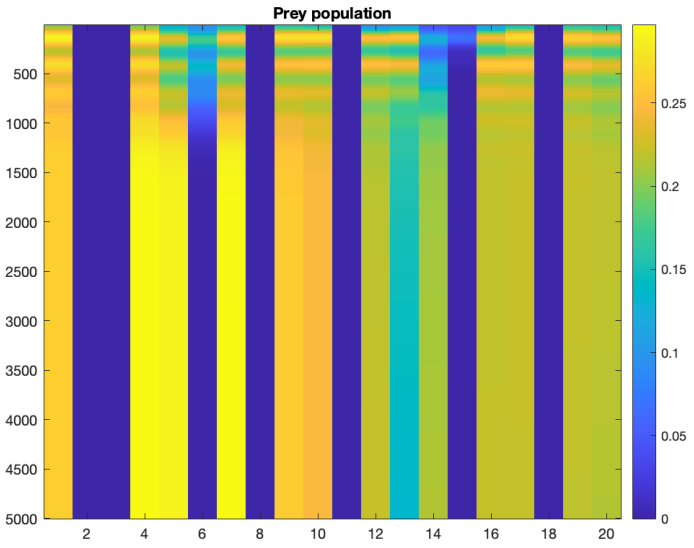

Figure 9: Migration decays quadratically in time, $\sigma = (\frac{(t_{final}-t)}{t_{final}})^2$

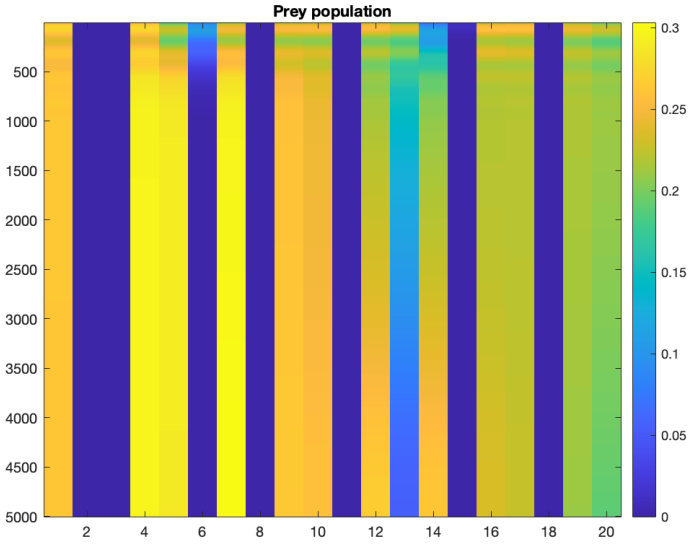

Figure 10: Migration decays quartically in time, $\sigma = (\frac{(t_{final}-t)}{t_{final}})^4$

3.2 Exponential rates of decay

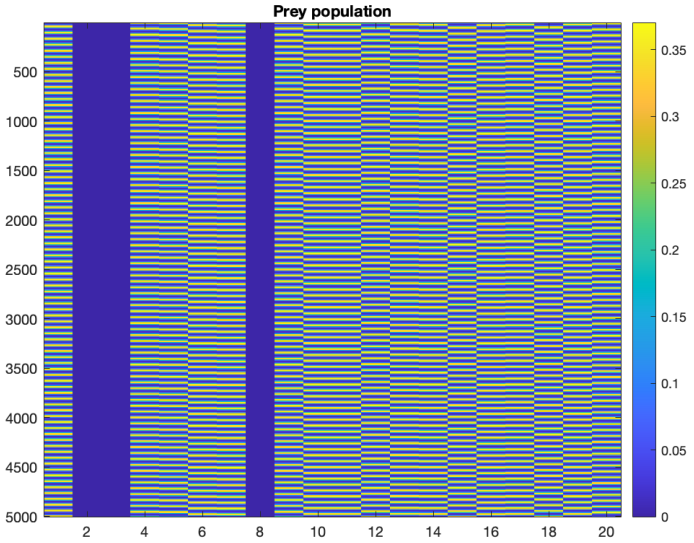

Figure 11: Migration decays exponentially in time, $\sigma = e^{-t}$

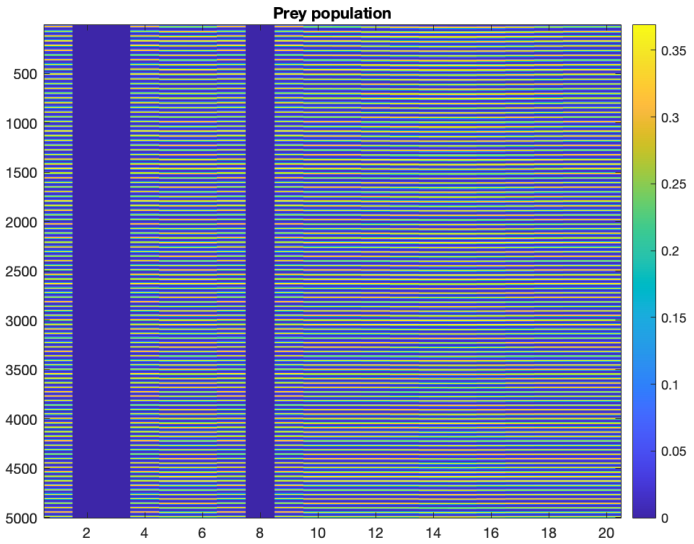

Figure 12: Migration decays exponentially in time, $\sigma = e^{-0.01t}$

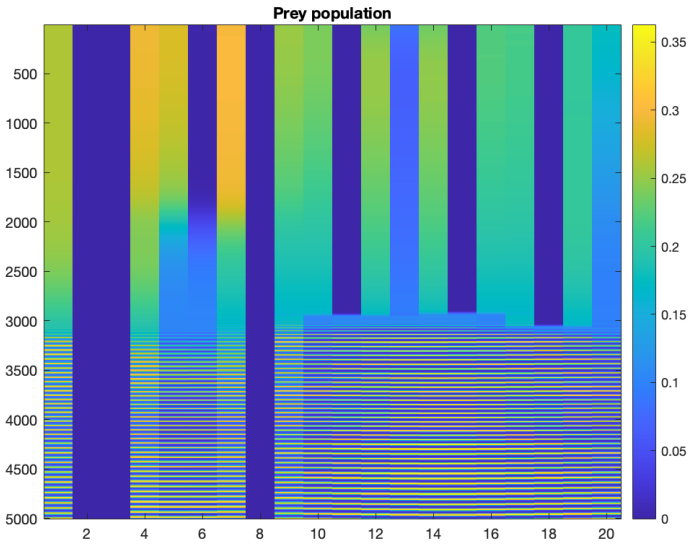

Figure 13: Migration decays exponentially in time, $\sigma = e^{-0.001t}$

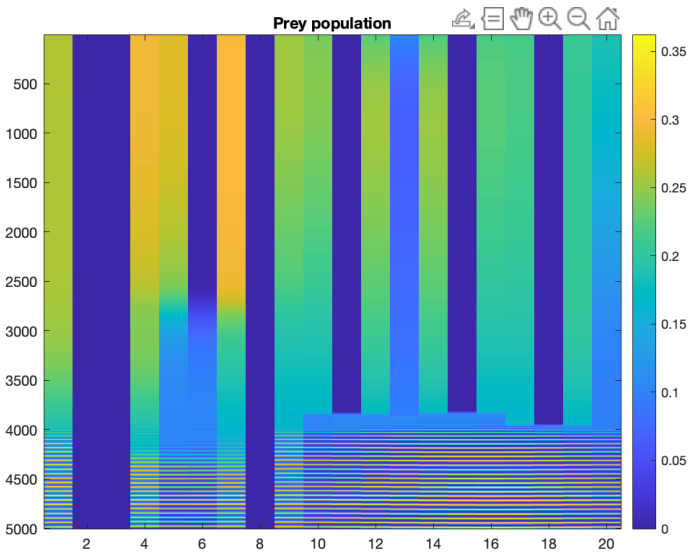

Figure 14: Migration decays exponentially in time, $\sigma = e^{-0.0009t}$

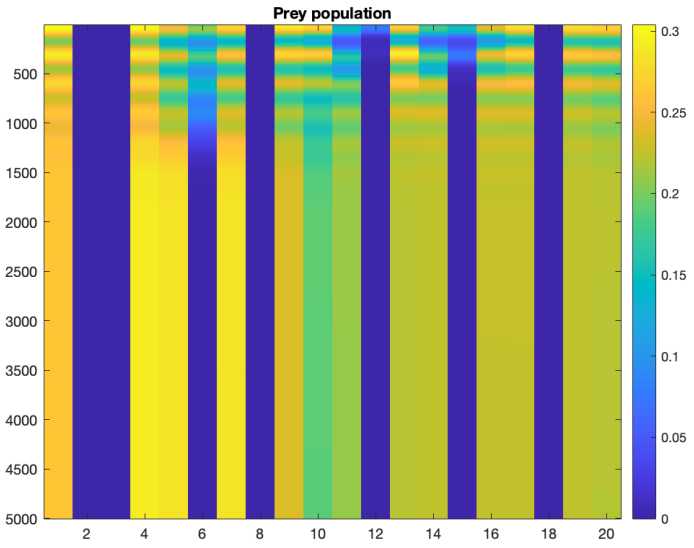

Figure 15: Migration decays exponentially in time, $\sigma = e^{-0.0001t}$