Supplementary Material Appendix 1

Simulation results for gradients in K, λ, σ and ϵ

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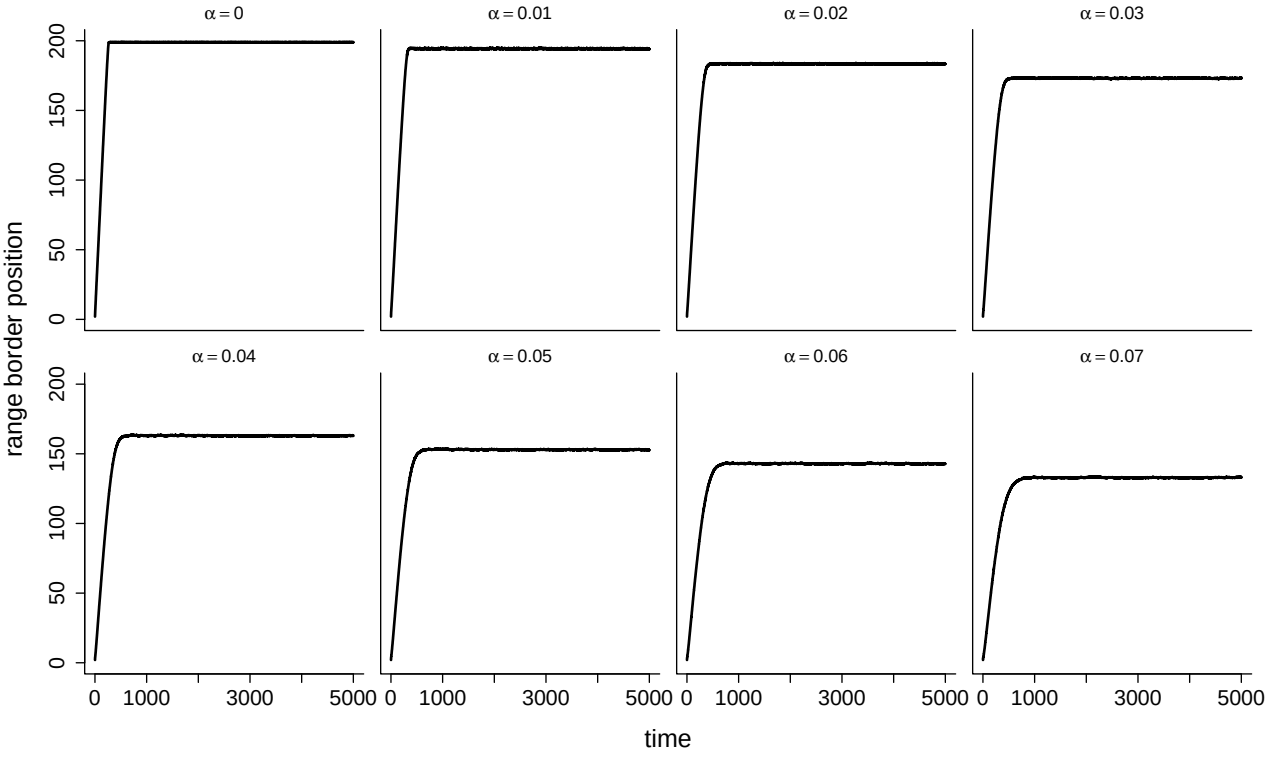

Figure A1: Range border position as a function of simulation time for a gradient in patch size (K). Patch size decreases from $K_{x=1} = 100$ to $K_{x=200} = 0$. Allee effect strength increases from the top left to the bottom right panel. For parameter values see main text. The black lines show the median values of 50 replicate simulations, the shaded grey areas denote 25% - and 75% quantiles.

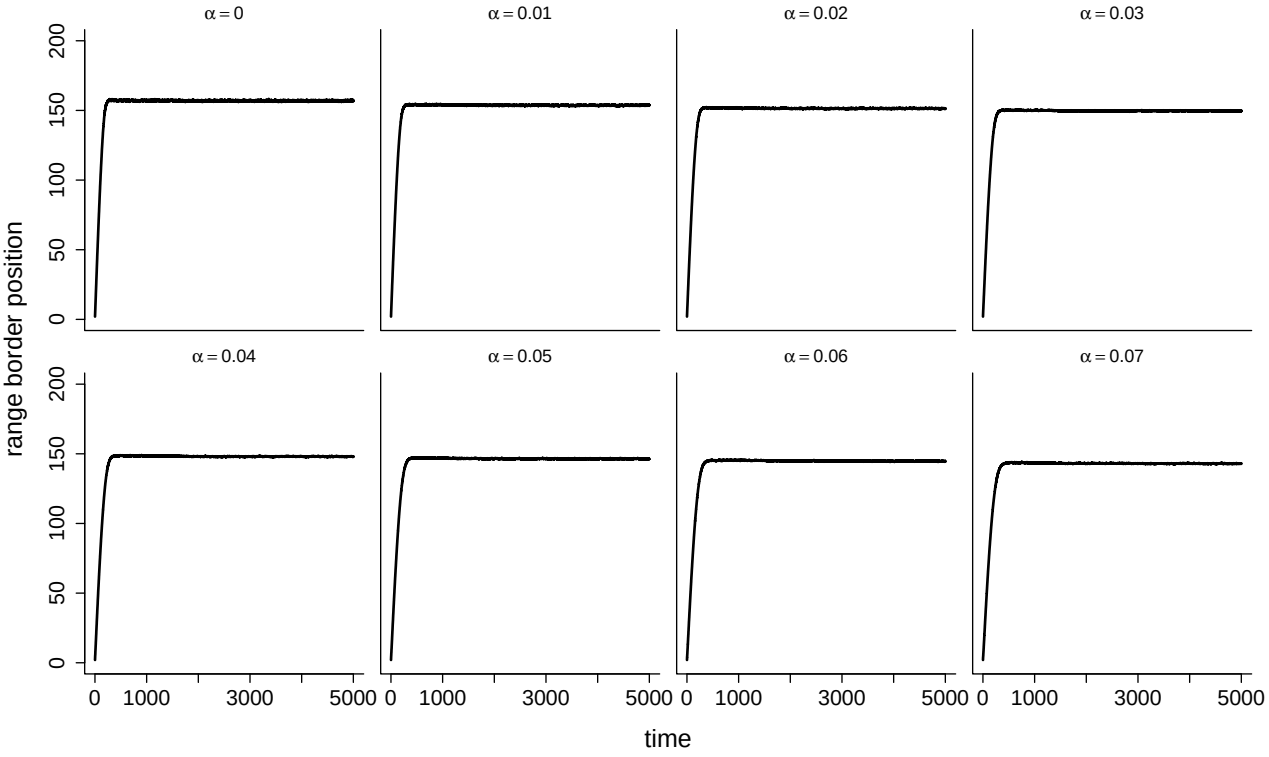

Figure A2: Range border position as a function of simulation time for a gradient in growth rate (λ). Growth rate decreases from $\lambda_{x=1} = 4$ to $\lambda_{x=200} = 0$. Allee effect strength increases from the top left to the bottom right panel. For parameter values see main text. The black lines show the median values of 50 replicate simulations, the shaded grey areas denote 25% - and 75% quantiles.

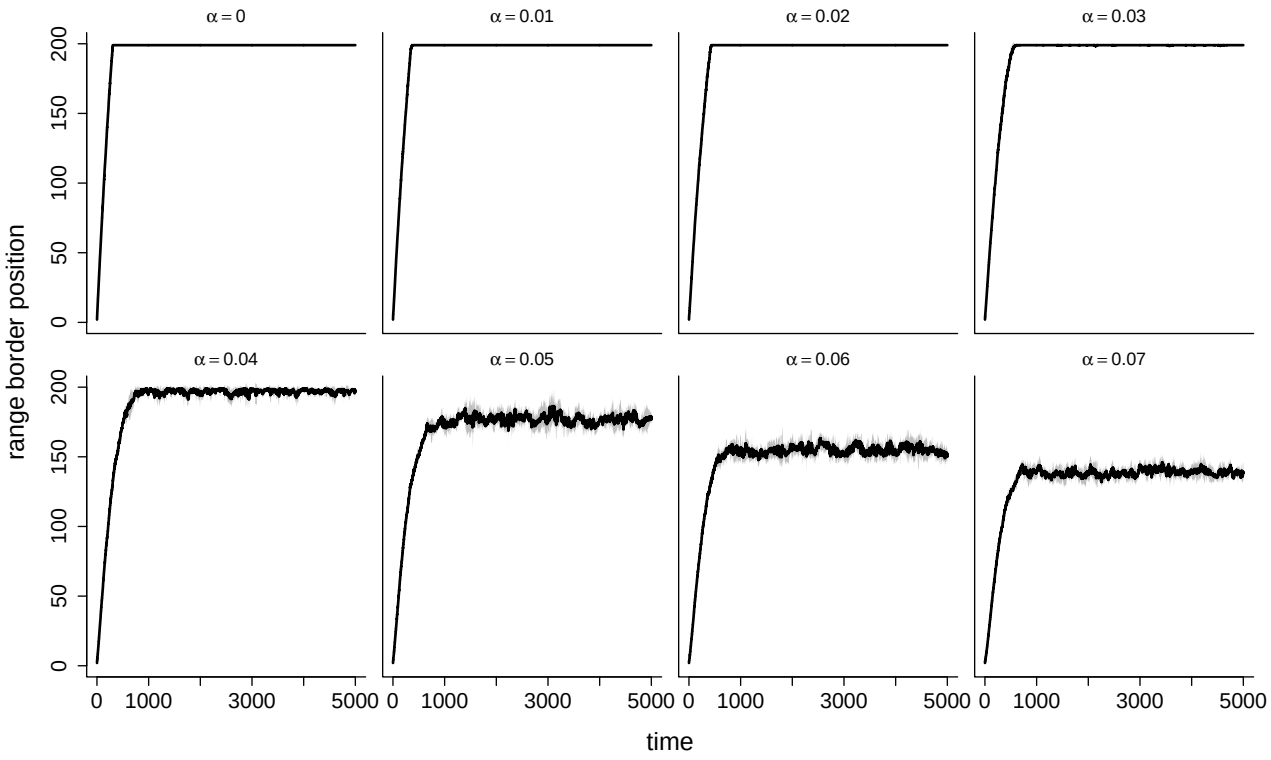

Figure A3: Range border position as a function of simulation time for a gradient in demographic stochasticity (σ). Growth rate increases from $\sigma_{x=1} = 0$ to $\sigma_{x=200} = 10$. Allee effect strength increases from the top left to the bottom right panel. For parameter values see main text. The black lines show the median values of 50 replicate simulations, the shaded grey areas denote 25% - and 75% quantiles.

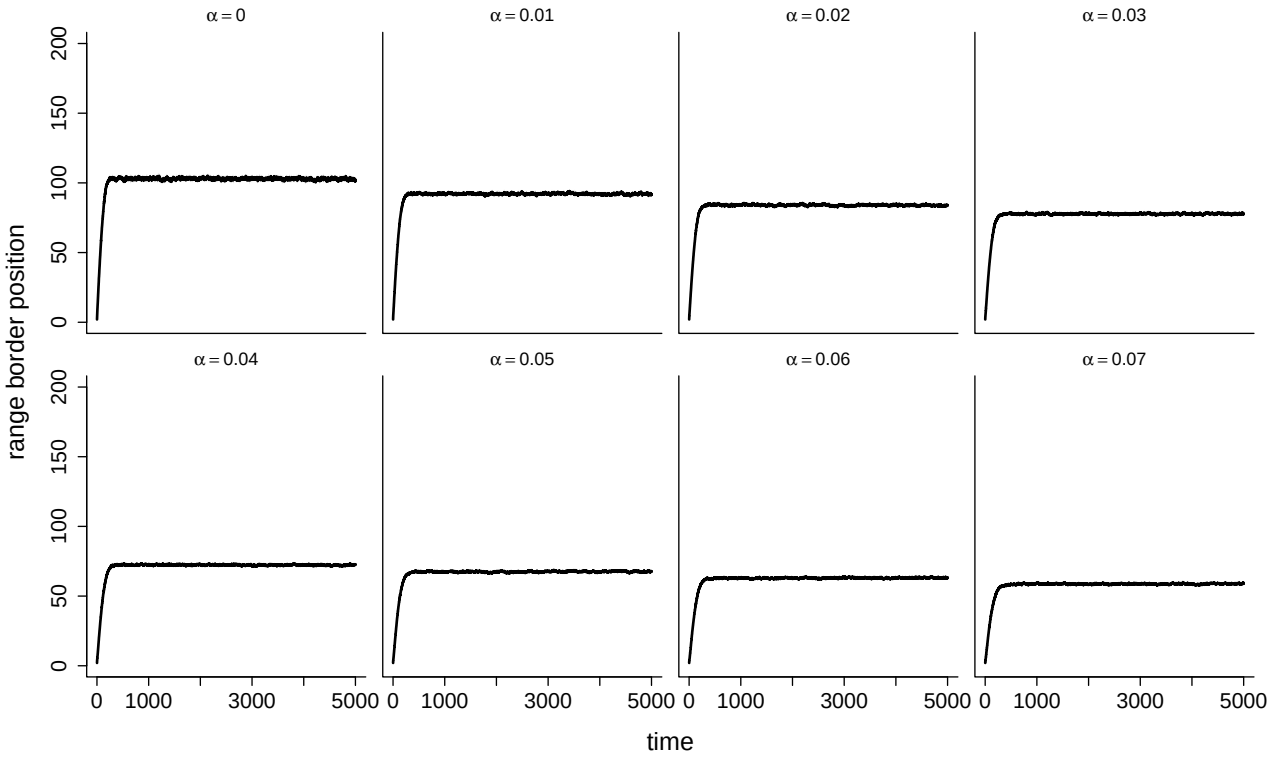

Figure A4: Range border position as a function of simulation time for a gradient in catastrophic extinction risk (ϵ). Extinction risk increases from $\epsilon_{x=1} = 0$ to $\epsilon_{x=200} = 1$. Allee effect strength increases from the top left to the bottom right panel. For parameter values see main text. The black lines show the median values of 50 replicate simulations, the shaded grey areas denote 25% - and 75% quantiles.

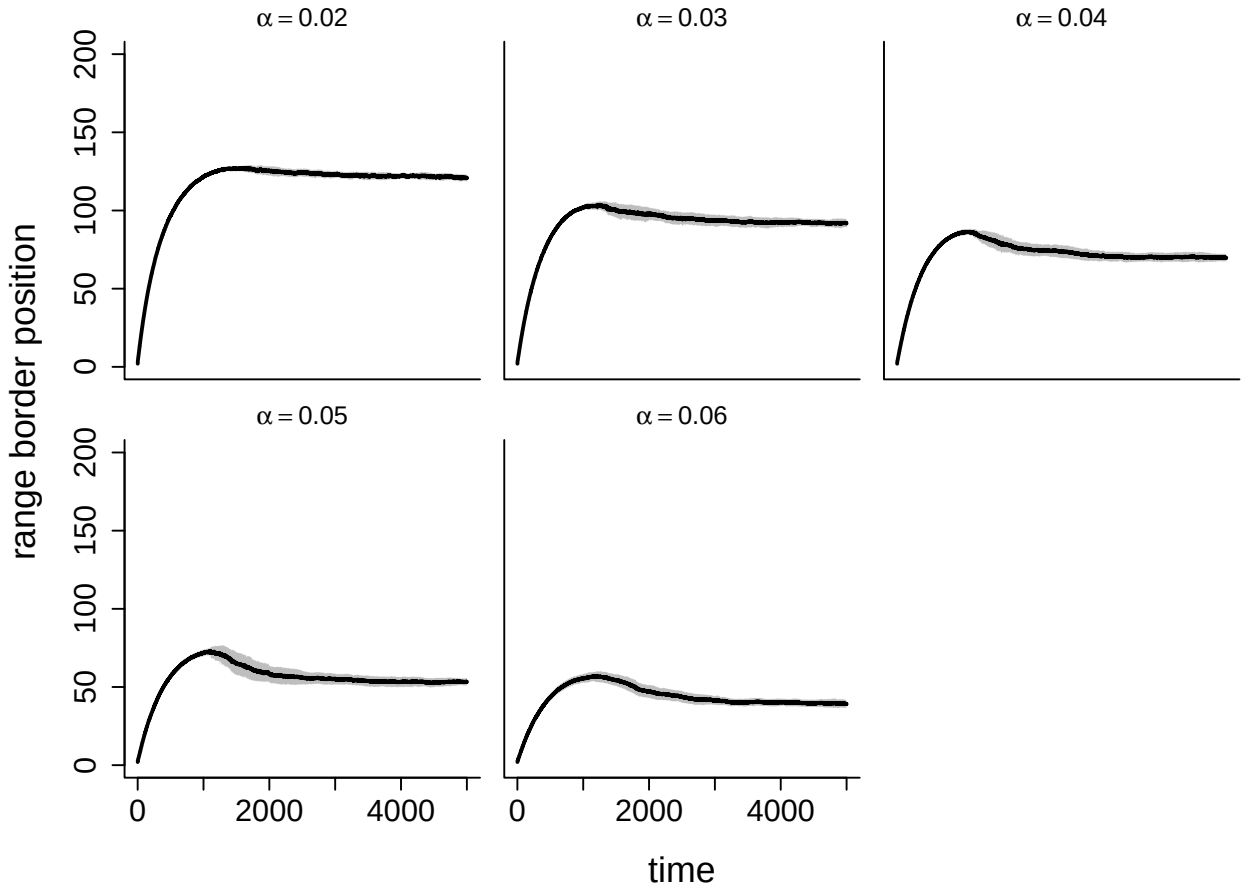

Figure A5: Range border position as a function of simulation time for a gradient in both patch size (K) and dispersal mortality (μ). Patch size decreases from $K_{x=1} = 100$ to $K_{x=200} = 0$ and dispersal mortality increases from $\mu_{x=1} = 0.2$ to $\mu_{x=200} = 1$. Allee effect strength increases from the top left to the bottom right panel. For parameter values see main text. The black lines show the median values of 50 replicate simulations, the shaded grey areas denote 25% - and 75% quantiles.