This supplementary material contains simulation results for the sensitivity analyses of the model parameters (S1). Figure S1 shows that the qualitative results shown in fig. 3 in the main text are robust to parameter values, except when the specialists go extinct because the colonization rate parameter of the generalist is too high (Fig. S1.1) and when their niche width is very narrow (Fig. S1.6)

**Figure legends.**

**Figures S1.** Sensitivity analyses examining the behavior of the spatial and stochastic model against changes in parameter values. Symbols and parameters are as in the fig. 3 in the main text, except that the value of the indicated parameter is altered. For Figure S1.7, M = 3, niche width is wider ν= 1, so that the specialists do not go extinct.