Model Testing Summary

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Functionality tested	**Test details**	**Test outcome**
SaveParams()	SaveParams.R tests that all input parameters are delisted and saved in an executable file that can be later read into R	Pass
ChangeClimate()	ChangeClimate.R tests both the functionality and ability to return useful error messages of the ChangeClimate function	Pass
PopMatColNames()	PopMatColNames.R checks the example functionality as well as the proper output for different numbers of fitness and dispersal alleles	Pass
Initialize()	Initialize.R checks for correct dimensionality of generated population matrices and tests that the values generated for the matrix conform to given parameters such as specified distributions and sex ratios	Pass
GetEnvQual() & CalcEnvMean()	EnvCalcFxns.R tests both of these functions by checking for symmetry and equivalence across spatial scales	Pass
CalcTraits()	CalcTraits.R tests the dimenstionality of the output and the distributional accuracy of the function	Pass
Disperse()	Disperse.R tests the distinction among the three possible dispersal kernels as well as the effect of increasing landscape width on dispersal patterns	Pass
RelFit()	RelFits.R tests the range of values returned by RelFit() and the effect of increasing or decreasing the degree of local adaptation and the amount of trait variance present on the calculated fitnesses	Pass
Inheritence()	Inheritence.R tests for correct segregation of independent alleles as well as correct behavior in the mutation process	Pass
MatFill()	MatFill.R tests for the correct dimensionality of the returned matrices and the correct elements in them based on input parents, locations, etc.	Pass
Reproduce()	Reproduce.R checks for helpful error messages, cases for which there should be zero growth on average, and detioriating growth with increased distance from an optimum due to local adaptation	Pass
No dispersal	NoDisperse.R uses the full model to test the case of zero dispersal and ensure that populations do not leave their staring patch	NA
Stationary range	StationaryRange.R uses the full model to check that populations with the ability to grow and disperse fill up a stationary range boundary, but do not move beyond it	NA
Moving environment	MovingEnv.R uses the full model to check that populations with the ability to grow, but not disperse, react to a moving environment by eventually going extinct	NA