

Table 2: Parameter values used in the simulation, deviations from these values are reported in the text.

Parameter	Value	Description
N	3	Number of nutrients
A	3	Number of abiotic factors
T_R	120	Reproduction threshold (biomass units)
T_D	50	Starvation threshold (biomass units)
P_{mut}	Varied	Probability of mutation at each genotype locus during reproduction
P_D	0.002	Probability of death by natural causes at each timestep
γ	1	Maintenance cost (biomass units/timestep)
θ	0.6	Nutrient conversion efficiency
C^{max}	10	Maximum nutrient consumption rate (units/timestep)
τ	1	Level of influence of abiotic environment on metabolism
I_N^{min}	0	Minimum rate of nutrient influx (units/timestep)
I_N^{max}	300	Maximum rate of nutrient influx (units/timestep)
O_N^{min}	0.01	Minimum rate of nutrient outflux (fraction/timestep)
O_N^{max}	0.25	Maximum rate of nutrient outflux (fraction/timestep)
I_A^{min}	0	Minimum rate of abiotic factor influx (units/timestep)
I_A^{max}	20	Maximum rate of abiotic factor influx (units/timestep)
O_A^{min}	0.01	Minimum rate of abiotic factor outflux (fraction/timestep)
O_A^{max}	0.25	Maximum rate of abiotic factor outflux (fraction/timestep)
K_f	20	Number of flask ecosystems in each batch
K_m	100	Number of individuals in flask inoculum
T_{prep}	500	Flask equilibration time prior to seeding (timesteps)
T_{prop}	Varied	Propagation time for flask ecosystems