Parameter	Competition Default Value	Mutualism Default Value	Description
$\alpha_{E,S}$	1	1	Mutualistic coefficient, benefit of prey species *S* to prey species *E*
$\beta_{E,S}$	1	0	Competition coefficient, effect of prey species *S* on prey species *E*
$\alpha_{S,E}$	1	1	Mutualistic coefficient, benefit of prey species *E* to prey species *S*
$\beta_{S,E}$	1	0	Competition coefficient, effect of prey species *E* on prey species *S*
μ_E	0.5	0.5	Maximum intrinsic growth rate of prey species *E*
μ_S	0.5	0.5	Maximum intrinsic growth rate of prey species *S*
$\gamma_{E,G}$	20	20	Burst size of generalist phage on prey species *E*
$\gamma_{E,P}$	20	20	Burst size of specialist phage on prey species *E*
$\gamma_{S,P}$	20	20	Burst size of specialist phage on prey species *S*
$\varsigma_{E,G}$	0.001	0.001	Attachment rate of generalist phage on prey species *E*
$\varsigma_{E,P}$	0.001	0.001	Attachment rate of specialist phage on prey species *E*
$\varsigma_{S,P}$	0.001	0.001	Attachment rate of specialist phage on prey species *E*
δ_E	0.03	0.03	Intrinsic death rate of prey species *E*
δ_S	0.03	0.03	Intrinsic death rate of prey species *S*
δ_G	0.03	0.03	Intrinsic death rate of generalist phage

δ_P	0.03	0.03	Intrinsic death rate of specialist phage
κ_E	0	1	Half-saturation constant of species *E*
κ_S	0	1	Half-saturation constant of species *S*
R	2	1	System carrying capacity