

Table 1: Parameter values in analytical and numerical analysis.

symbol	description	Value (analytical)	Value (numerical)
r_0	Resource supply [-]	0.40, 0.80	0.40, 0.80
g_0	Propagule size for producers [-]	150	75 , 150
h	Habitat density [per unit river distance]	2.50	2.50
δ_0	Dispersal capability for producers [per unit river distance]	0.50	0.50
$\mu^{(0)}$	Disturbance rate [per unit time]	2.50, 5.00	2.50, 5.00
$\mu^{(p)}$	Maximum prey-induced extinction rate [per unit time]	5.00	2.50, 5.00
$\mu^{(c)}$	Predator-induced extinction rate [per unit time]	0.00	1.25, 2.50
ρ	Synchrony probability [-]	0.00, 0.50	0.25, 0.50
ψ	Scaling exponent for dispersal capability and propagule size	0.50	0.50
θ	Degree of omnivory [unit trophic position]	0.25	0.25, 0.50