

Parameter	Values
Malthusian parameter	$\epsilon_i = 0.004$
Assemblage interaction matrix	
Main diagonal	Detrimental - $\alpha_{ii} = -0.0005$
Sub- and super-diagonal	Detrimental - $\alpha_{ij} = -0.0001$
Assemblage maximum growth rate (m yr ¹)	
Shallow-water assemblage (0–6 m)	0.011
Moderate–deep-water assemblage (6–20 m)	0.012
Deep-water assemblage (20–30 m)	0.009
Assemblage threshold tolerance variables	
Shallow-water assemblage (0–6 m)	
Absolute water flow threshold range	$0.05 \leq f_{\text{flow}} \leq 0.3$
Absolute sediment input threshold range	$0 \leq f_{\text{sed}} \leq 0.003$
Moderate–deep-water assemblage (6–20 m)	
Absolute water flow threshold range	$0 \leq f_{\text{flow}} \leq 0.12$
Absolute sediment input threshold range	$0.0015 \leq f_{\text{sed}} \leq 0.003$
Deep-water assemblage (20–30 m)	
Absolute water flow threshold range	$0 \leq f_{\text{flow}} \leq 0.08$
Absolute sediment input threshold range	$0.0023 \leq f_{\text{sed}} \leq 0.0045$