Table 4. Size-independent model parameters.

Parameter	Symbol	Value	Units
Nutrient quotas			
Minimum phosphate:carbon quota	$Q_{\mathrm{P}}^{\mathrm{min}}$	2.1×10^{-3}	mmol P (mmol C)$^{-1}$
Maximum phosphate:carbon quota	$Q_{\mathrm{P}}^{\mathrm{max}}$	1.1×10^{-2}	mmol P (mmol C)$^{-1}$
Minimum iron:carbon quota	$Q_{\mathrm{Fe}}^{\mathrm{min}}$	1.0×10^{-6}	mmol Fe (mmol C)$^{-1}$
Maximum iron:carbon quota	$Q_{\mathrm{Fe}}^{\mathrm{max}}$	4.0×10^{-6}	mmol Fe (mmol C)$^{-1}$
Temperature			
Reference temperature	T_{ref}	20	°C
Temperature dependence	A	0.05	-
Photosynthesis			
Maximum Chl-*a*-to-phosphorus ratio	$\theta_{\mathrm{N}}^{\mathrm{max}}$	48	mg Chl *a* (mmol P)$^{-1}$
Initial slope of P-I curve	α	3.83×10^{-7}	mmol C (mg Chl *a*)$^{-1}$(μEin m^{-2})$^{-1}$
Cost of biosynthesis	ξ	37.28	mmol C (mmol P)$^{-1}$
Grazing			
Optimum predator:prey length ratio	ϑ_{opt}	10	-
Geometric s.d. of ϑ	σ_{graz}	2.0	-
Total prey half-saturation	$k_{\mathrm{C}}^{\mathrm{prey}}$	5.0	mmol C m^{-3}
Maximum assimilation efficiency	λ^{max}	0.7	-
Grazing refuge parameter	Λ	-1	(mmol C m^{-3})$^{-1}$
Active switching parameter	s	2	-
Assimilation shape parameter	h	0.1	-
Other loss terms			
Plankton mortality	m	0.05	d^{-1}
Plankton respiration	$r_{i_b=\mathrm{DIC}}$	0.05	d^{-1}
	$r_{i_b\neq\mathrm{DIC}}$	0	d^{-1}
Partitioning of organic matter			
Fraction to DOM	β	0.66	-
Light attenuation			
Light attenuation by water	k_{w}	0.04	m^{-1}
Light attenuation by chlorophyll	k_{Chl}	0.03	m^{-1}(mg Chl)$^{-1}$