Table A1. Values of model parameter values and parameters used to calculate maturation rates G_i (Eq. A26) and survival rates P_i (Eq. A27) for bulb mites, coho salmon and bullhorned dung beetles. Note that different time units are used for the different species. All data are taken from published studies and references can be found in the footnotes.

Parameter	Definition	Bulb mite	Coho salmon	Bullhorned dung beetle
e_0	Number of individuals (of any type) encountered by a focal individual per time step	$e_0 = t_f$	$e_0 = t_f$	$e_0 = t_f$
k_0	Clutch size produced per mating in the absence of density-dependence	26.1 [1]	3300 [3]	1 [7]
σ_{zx}	Survival rate of juvenile females per unit time	1.00 (per day) [1,2]	0.04 ± 0.02 SD (per year) [4,5]	0.99 (per day) [2,5,8]
σ_{zf}	Survival rate of juvenile fighters per unit time	1.00 (per day) [1,2]	0.04 ± 0.02 SD (per year) [4,5]	0.99 (per day) [2,5,8]
σ_{zs}	Survival rate of juvenile sneakers per unit time	1.00 (per day) [1,2]	0.04 ± 0.02 SD (per year) [4,5]	0.99 (per day) [2,5,8]
σ_{xx}	Survival rate of adult females per unit time	0.95 (per day) [1,2]	0 (per year) [2,3]	0.98 (per day) [2,5,9]
σ_{ff}	Survival rate of adult fighters per unit time	0.95 (per day) [1,2]	0 (per year) [2,3]	0.98 (per day) [2,5,9]
σ_{ss}	Survival rate of adult sneakers per unit time	0.96 (per day) [1,2]	0 (per year) [2,3]	0.98 (per day) [2,5,9]
t_x	Mean maturation time of females	13.7 ± 0.9 SE days [1]	3 years [2,6]	36.6 ± 0.35 SE days [10]
t_f	Mean maturation time of fighters	14.4 ± 0.6 SE days [1]	2 years [2,6]	37.5 ± 0.18 SE days [10]
t_s	Mean maturation time of sneakers	12.6 ± 0.7 SE days [1]	3 years [2,6]	35.6 ± 0.28 SE days [11]

[1] Smallegange 2011a, b; [2] These are point estimates and no SEs are available; [3] Fleming and Gross 1990; [4] Teo et al. 2009 (overall survival rate was estimated from Fig. 2); [5] No separate data for female, fighter or sneaker juveniles are given; [6] Koseki and Fleming 2006; [7] one egg per brood mass (Hunt and Simmons 1997); [8] calculated as $0.584^{1/36.6}$ where 58.4% of larvae survive after 36.6 development days ('Unmanipulated control') (Hunt and Simmons 1997); [9] calculated as $(1 - 0.063)^{1/3}$ where 6.3% of adults died after 3 days ('Untreated' treatment) (Wardhaugh et al. 2001); [10] 'Dung added' treatment (Hunt and Simmons 1997); [11] 'Dung removed' treatment (Hunt and Simmons 1997).