

Supplementary material:

Table 1S Statistics (Wald X^2 ; df ; P-value) of the different GLMM models adjusted to survival (multinomial) and oviposition (Poisson) estimated during the first 24-hour period after the onset of the assay for *E. stipulatus* either alone or in competition with *N. californicus* (vs Nc) or *P. persimilis* (vs Pp) when offered four different diets at present and future abiotic conditions.

Factors	Alone		vs Nc		vs Pp	
	Survival	Oviposition	Survival	Oviposition	Survival	Oviposition
Diet	3.39; 3; 0.020	6.23; 3; 0.001	1.27; 3; 0.290	5.26; 3; 0.002	1.77; 3; 0.157	-
Abiotic conditions	3.25; 1; 0.074	1.23; 1; 0.274	0.19; 1; 0.666	12.30; 1; 0.001	0.01; 1; 0.970	-
Diet x Abiotic conditions	0.44; 3; 0.726	1.71; 3; 0.181	4.40; 3; 0.006	1.30; 3; 0.281	3.59; 3; 0.016	-
Model	2.03; 7; 0.056	2.71; 7; 0.022	2.50; 7; 0.035	6.14; 7; < 0.001	1.75; 7; 0.068	-

Table 2S. Statistics (Wald X^2 ; df ; P-value) of the different GLMM models adjusted to survival (multinomial) and oviposition (Poisson). Estimated during the first 24-hour period after the onset of the assay for *N. californicus* either alone or in competition with *N. californicus* (vs Nc) or *P. persimilis* (vs Pp) when offered four different diets at present and future abiotic conditions.

actors	Alone		vs Es		vs Pp	
	Survival	Oviposition	Survival	Oviposition	Survival	Oviposition
Diet	0.24; 3; 0.869	9.94; 2; < 0.001	2.39; 3; 0.072	6.73; 3; < 0.001	0.93; 3; 0.431	4.76; 3; < 0.001
Abiotic conditions	8.88; 1; 0.003	6.89; 1; 0.010	11.18; 1; 0.001	2.11; 1; 0.149	12.08; 1; 0.001	10.12; 1; 0.001
Model	4.66; 3; 0.004	0.86; 2; 0.428	4.63; 3; 0.004	0.27; 3; 0.848	2.10; 3; 0.104	0.28; 3; 0.607
	3.30; 7; 0.003	7.70; 6; < 0.001	3.97; 7; 0.001	3.48; 7; 0.002	2.66; 7; 0.014	4.09; 7; < 0.001

Table 3S. Statistics (Wald X^2 ; df ; P-value) of the different GLMM models adjusted to survival (multinomial) and oviposition (Poisson). Estimated during the first 24-hour period after the onset of the assay for *P. persimilis* either alone or in competition with *N. californicus* (vs Nc) or *P. persimilis* (vs Pp) when offered four different diets at present and future abiotic conditions.

Factors	Alone	vs Es	vs Nc	All combinations
	Oviposition	Oviposition	Oviposition	Survival
Diet	5.05; 2; 0.011	25.90; 3; < 0.001	25.54; 3; < 0.001	2.74; 3; 0.043
Abiotic conditions	1.27; 1; 0.268	0.55; 1; 0.46	0.57; 1; 0.453	11.60; 1; < 0.001
Diet x Abiotic conditions	0.02; 2; 0.998	1.27; 3; 0.290	1.43; 3; 0.238	3.32; 3; 0.020
Model	3.04; 5; 0.021	11.89; 7; < 0.001	11.99; 7; < 0.001	4.62; 7; < 0.001

Table 4S. Statistics (F; *df*; P-value) of the different models adjusted to predation (Poisson GLMM) of each Phytoseiid species (*Euseius stipulatus*, *Neoseiulus californicus* and *Phytoseiulus persimilis*) either alone (Es, Nc and Pp) or in competition with heterospecifics (Es vs Nc, Nc vs Pp and Pp vs Es) for three different factors considered: diet, abiotic conditions, Phytoseiid combination ('sp.' or phytoseiids without competition and 'combination' with competition) and their interactions.

Factors	Alone	Competition
Phytoseiid sp. / Combination (1)	183.85; 2; < 0.001	118.1; 2; < 0.001
Abiotic conditions (2)	0.23; 1; 0.636	1.65; 1; 0.201
Diet (3)	2.06; 1; 0.154	12.98; 1; < 0.001
1 x 2	39.65; 2; < 0.001	1.25; 2; 0.288
1 x 3	26.28; 2; < 0.001	7.07; 2; 0.001
2 x 3	6.27; 1; 0.014	1.23; 1; 0.291
1 x 2 x 3	6.54; 2; 0.002	24.54; 2; < 0.001
Model	60.69; 11; < 0.001	30.55; 11; < 0.001