Combined effects of salinity and trematode infections on the filtration capacity, growth and condition of mussels

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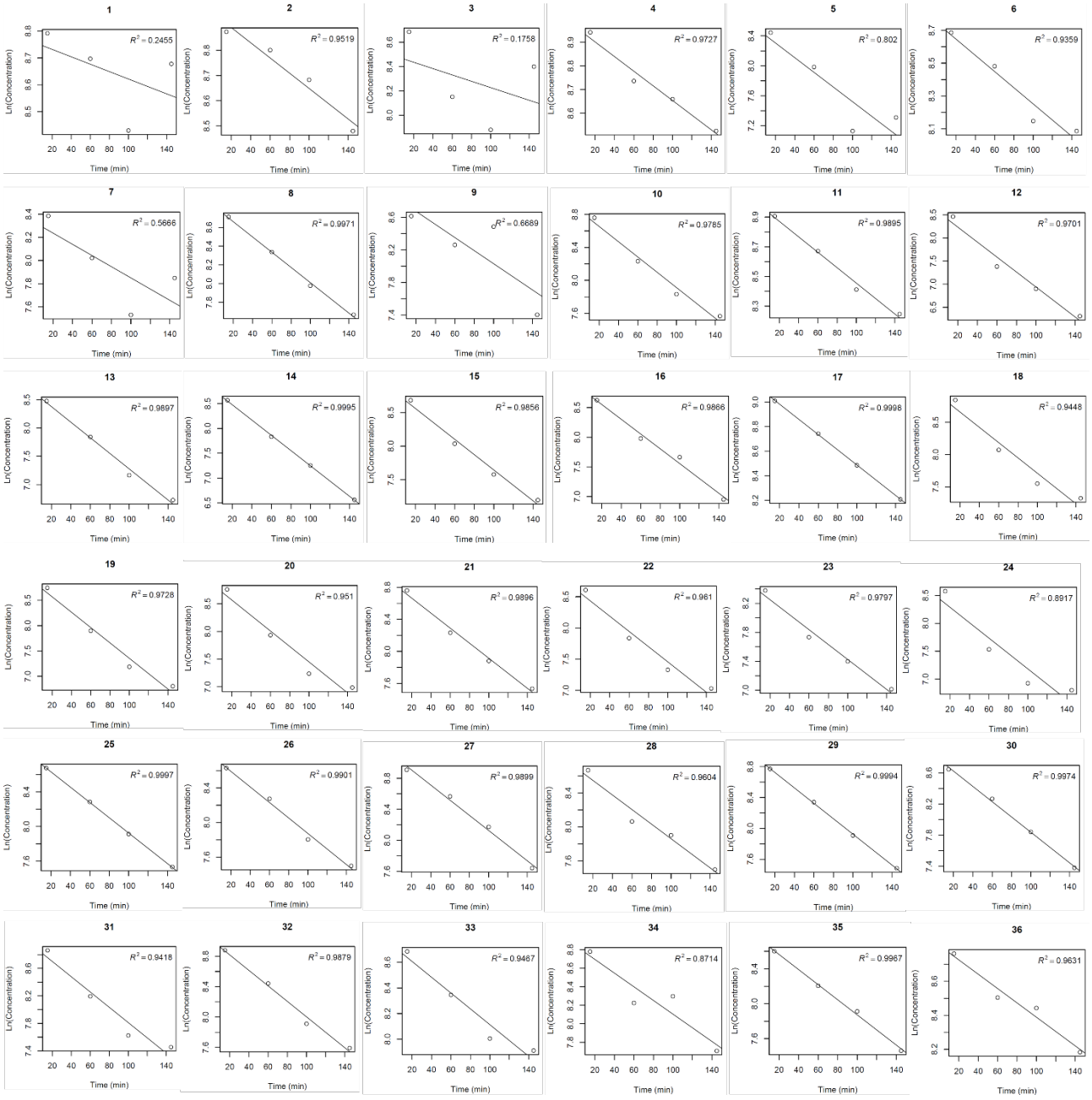

Fig. S1. Linear regression of algal (*Rhodomonas salina*) concentration (natural logarithm) versus time (four measurements in total, after 15, 60, 100 and 145 minutes) for each replicate unit (cylinder of 4000 mL with four blue mussel individuals in each). The replicate units were thirty-six in total. The linear regressions are plotted for start filtration measurement only, as for the end filtration rate measurement the data points are only two.

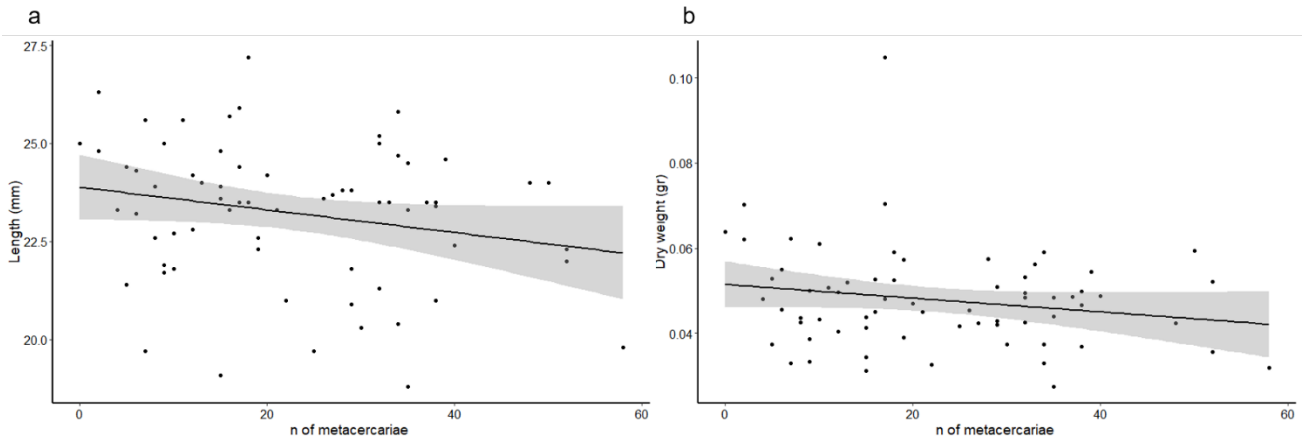

Fig. S2. Simple linear regression models for the number of *H. elongata* metacercariae density in infected mussel tissue as functions of (a) individual mussel length (R^2= 5%) and (b) individual mussel dry weight (R^2=3%).

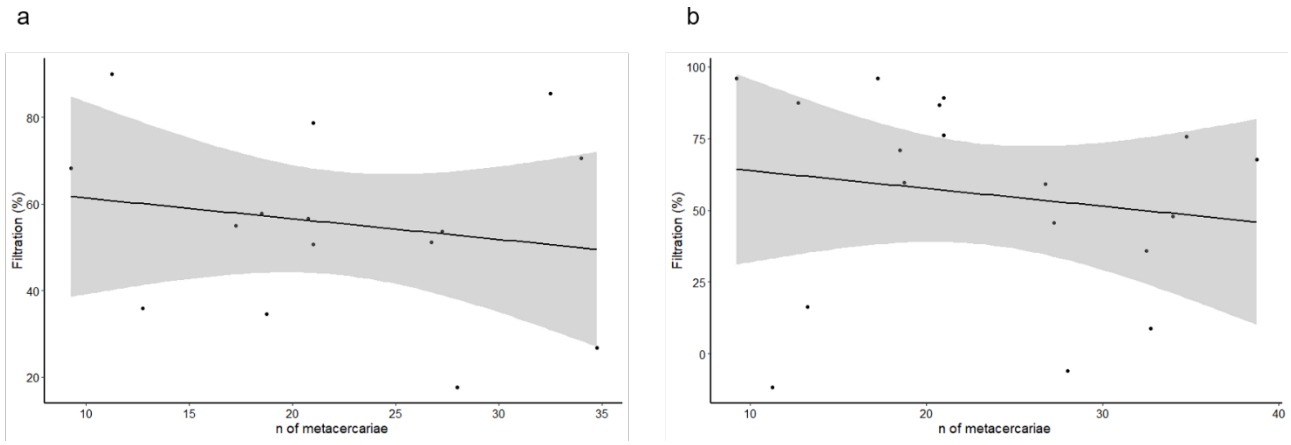

Fig. S3. Simple linear regression models for the number of *H. elongata* metacercariae density in infected mussel tissue as functions of (a) filtration rate during the start measurement (R^2 = 3%) (b) filtration rate during the last measurement. R^2 = 2%)

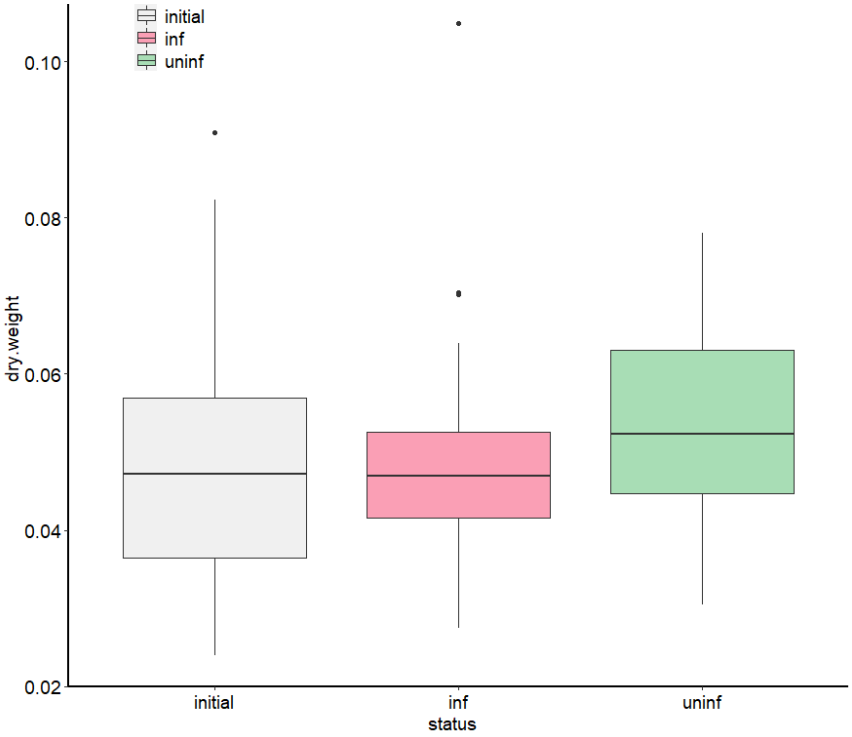

Fig. S4. Initial dry weight of 20 randomly selected blue mussel individuals with initial shell lengths of 18–21.5 mm (in grey) and final dry weight of infected (in pink) and uninfected mussels (in green).

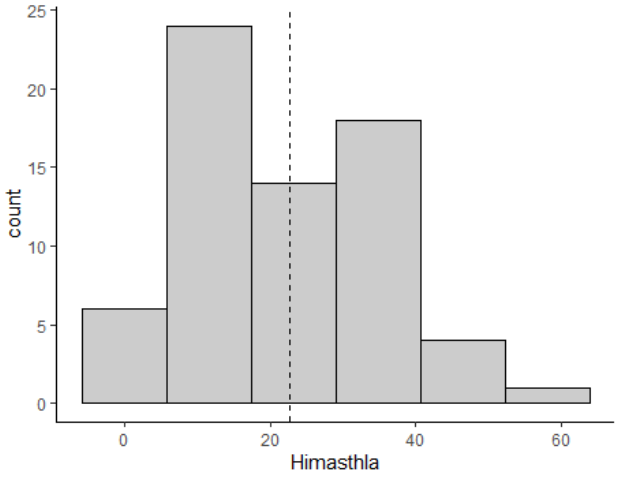

Fig. S5. Frequency distribution of *Himasthla elongata* metacercariae load in each blue mussel individual.

Table S1. Correlation among number of metacercariae in the mussel tissue and blue mussel final length. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	T value	Pr(>|t|)
Intercept	23.885	0.413	57.738	<0.001***
N of metacercariae	-0.028	0.015	-1.853	0.068.

Table S2. Correlation among number of metacercariae in the mussel tissue and blue mussel dry weight. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	T value	Pr(>|t|)
Intercept	0.051	0.002	18.936	<0.001***
N of metacercariae	-0.000	0.000	-1.584	0.118

Table S3. Correlation among number of metacercariae in the mussel tissue and blue mussel filtration rate at the start measurement. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	T value	Pr(>|t|)
Intercept	66.145	16.661	3.970	0.001**
N of metacercariae	-0.476	0.706	-0.675	0.511

Table S4. Correlation among number of metacercariae in the mussel tissue and blue mussel filtration rate at the end measurement. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	T value	Pr(>|t|)
Intercept	70.094	23.588	2.972	0.009**
N of metacercariae	-0.621	0.950	-0.654	0.522

Table S5. Effect of salinity (6, 9, 12, 15, 18, 21, 24, 27, 30) and *Himasthla elongata* infection on blue mussel shell length. Additive and interactive effects are shown. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	df	T value	Pr(>|t|)
Intercept	23.2599	0.1704	30.2998	136.483	**< 0.001***
Poly(Salinity,2)1	13.3719	2.0401	31.9966	6.555	**<0.001***
Poly(Salinity,2)2	-4.2932	2.0408	31.5997	-2.104	**0.043***
Infection-uninfected	0.2313	0.2394	29.8103	0.966	0.341
Poly(Salinity,2)1:Infection-uninfected	0.5860	2.8329	30.5313	0.207	0.837
Poly(Salinity,2)2:Infection-uninfected	-3.4060	2.8346	30.2275	-1.202	0.238

Table S6. Effect of salinity (6, 9, 12, 15, 18, 21, 24, 27, 30) and *Himasthla elongata* infection on blue mussel dry tissue weight. Additive and interactive effects are shown. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	df	T value	Pr(>|t|)
Intercept	0.047839	0.001417	134.000	33.608	**<0.001***
Poly(Salinity,2)1	0.03075	0.01707	134.000	1.801	0.0**739**
Poly(Salinity,2)2	-0.00971	0.01707	134.000	-0.569	0.5703
Infection-uninfected	0.005733	0.00199	134.000	2.869	**0.004****
Poly(Salinity,2)1:Infection-uninfected	-0.01620	0.02366	134.000	-0.685	**0.4946**
Poly(Salinity,2)2:Infection-uninfected	0.01375	0.02367	134.000	0.581	**0.5622**

Table S7. Effect of salinity (6, 9, 12, 15, 18, 21, 24, 27, 30) and *Himasthla elongata* infection on blue mussel CI (Condition Index). Additive and interactive effects are shown. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	df	T value	Pr(>|t|)
Intercept	3.804e-03	8.345e-05	3.023e+01	45.580	<0.001***
Poly(Salinity,2)1	-3.933e-03	1.000e-03	3.196e+01	-3.931	**<0.001*** **
Poly(Salinity,2)2	1.518e-03	1.000e-03	3.153e+01	1.517	0.139
Infection-uninfected	3.774e-04	1.172e-04	2.973e+01	3.220	**0.003****
Poly(Salinity,2)1:Infection-uninfected	-3.341e-03	1.387e-03	3.046e+01	-2.408	**0.022***
Poly(Salinity,2)2:Infection-uninfected	3.869e-03	1.388e-03	3.014e+01	2.788	**0.009****

Table S8. Effect of salinity (6, 9, 12, 15, 18, 21, 24, 27, 30) and *Himasthla elongata* infection on blue mussel filtration rate at the beginning of the experimental period (start measurement). Additive and interactive effects are shown. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	T value	Pr(>|t|)
Intercept	8.3531	0.6986	11.957	<0.001
Poly(Salinity,2)1	0.3701	4.1948	0.088	0.930
Poly(Salinity,2)2	-10.3503	4.2486	-2.436	**0.021***
Infection-uninfected	0.8464	0.9447	0.896	0.378
Poly(Salinity,2)1:Infection-uninfected	0.5473	5.4658	5.4658	0.921
Poly(Salinity,2)2:Infection-uninfected	-1.2182	5.5031	5.5031	0.826

Table S9. Effect of salinity (6, 9, 12, 15, 18, 21, 24, 27, 30) and *Himasthla elongata* infection on blue mussel filtration rate at the end of the experimental period (end measurement). Additive and interactive effects are shown. Results of a Generalised Linear Model with Gaussian distribution. Significant effects are indicated in bold.

	Estimate	Std. Error	T value	Pr(>|t|)
Intercept	55.131	6.572	8.389	**<0.001**
Poly(Salinity,2)1	113.143	38.643	2.928	**0.006****
Poly(Salinity,2)2	-67.773	39.314	-1.622	0.115
Infection-uninfected	4.590	9.430	0.487	0.630
Poly(Salinity,2)1:Infection-uninfected	-16.124	55.816	-0.289	0.774
Poly(Salinity,2)2:Infection-uninfected	-36.163	55.74	-0.649	0.521