Supplement 2

Table S3: Firth's logistic regression, a penalized log-likelihood model, that tests for the effects of accessibility to crawling predators and tidal exposure on the quasi-completely separated blue mussel occurrence data of floating docks, rocky sites, and trees. Both predictor variables are significant to predict blue mussel occurrence (p values < 0.05).

	Coefficient	Standard error	Lower 95% CI	Upper 95% CI	χ^2	p-value	Odds ratio
Intercept	4.04	1.43	2.08	8.89	35.15	< 0.001	57.00
Tide	-2.48	1.47	-7.35	-0.35	5.65	0.017	0.084
Accessibility	-4.19	0.54	-5.33	-3.20	Inf	< 0.001	0.015

Table S4: Logistic regression model with proportions that tests for differences in blue mussel mortality between the four cage categories. The model is corrected for overdispersion by using a quasibinomial link and a F test, and it shows that cage category is a significant predictor variable to predict blue mussel mortality within cages (p < 0.05). Tukey's pairwise comparison indicates between which cage categories blue mussel mortalities differ significantly from each other. "Small" stands for small-meshed cages, "Large" for large-meshed cages, and "DW" for dogwhelks.

	DF	Deviance residuals	DF residuals	Dev	F	Pr(>F)
Null model			35	396		
Model with cage category as predictor	3	128	32	268	6.15	0.002

	Estimate	Standard error	z-value	Pr(>|z|)
Small with DW - Small without DW	-2.52	0.80	-3.15	< 0.01
Large without DW - Small without DW	-2.48	0.81	-3.04	< 0.02
Large with DW - Small without DW	-2.46	0.81	-3.03	< 0.02
Large without DW - Small with DW	0.05	0.54	0.10	> 0.99
Large with DW - Small with DW	0.07	0.54	0.12	> 0.99
Large with DW - Large without DW	0.01	0.56	1.00	1.00

Table S5: Poisson regression for clustered data to test for the effect of cage category on the number of dogwhelks feeding or drilling. The random factor is individual cages, for each cage, data got collected 4-7 times. The null model includes this random factor as well but not cage category as predictor variable. The model comparison shows that cage category is a significant predictor variable ($p < 0.05$). Applying Tukey's pairwise comparison to the model with cage category as predictor variable shows between which cage categories the number of prey-handling dogwhelks differ significantly from each other. "Small" stands for small-meshed cages, "Large" for large-meshed cages, and "DW" for dogwhelks.

	npar	AIC	BIC	logLik	Deviance	χ^2	DF	Pr(>χ^2)
Null model	2	988	995	-492	984			
Model with cage category as predictor	5	962	980	-476	953	31.41	3	< 0.001

	Estimate	Standard error	z-value	Pr(>|z|)
Small with DW - Small without DW	2.84	0.51	5.56	< 0.001
Large without DW - Small without DW	2.57	0.51	5.03	< 0.001
Large with DW - Small without DW	2.55	0.51	5.01	< 0.001
Large without DW - Small with DW	-0.27	0.41	-0.67	> 0.90
Large with DW - Small with DW	-0.29	0.41	-0.70	> 0.89
Large with DW - Large without DW	-0.01	0.42	-0.03	1.00

Table S6: Polynomial regression model for Figure 6. The model shows that there is a significant positive correlation between the number of prey-handling dogwhelks and blue mussel mortality within the cages ($p < 0.05$).

	Estimate	Standard error	t-value	Pr(>|t|)	Residual standard error	Multiple R^2	Adjusted R^2	F-statistic	*p*-value
Intercept	40.20	1.98	20.28	<0.001	11.89 on 33 DF	0.88	0.87	120.6 on 2 and 33 DF	<0.001
Pol 1	181.09	11.89	15.23	<0.001					
Pol 2	-36.48	11.89	-3.07	0.004					

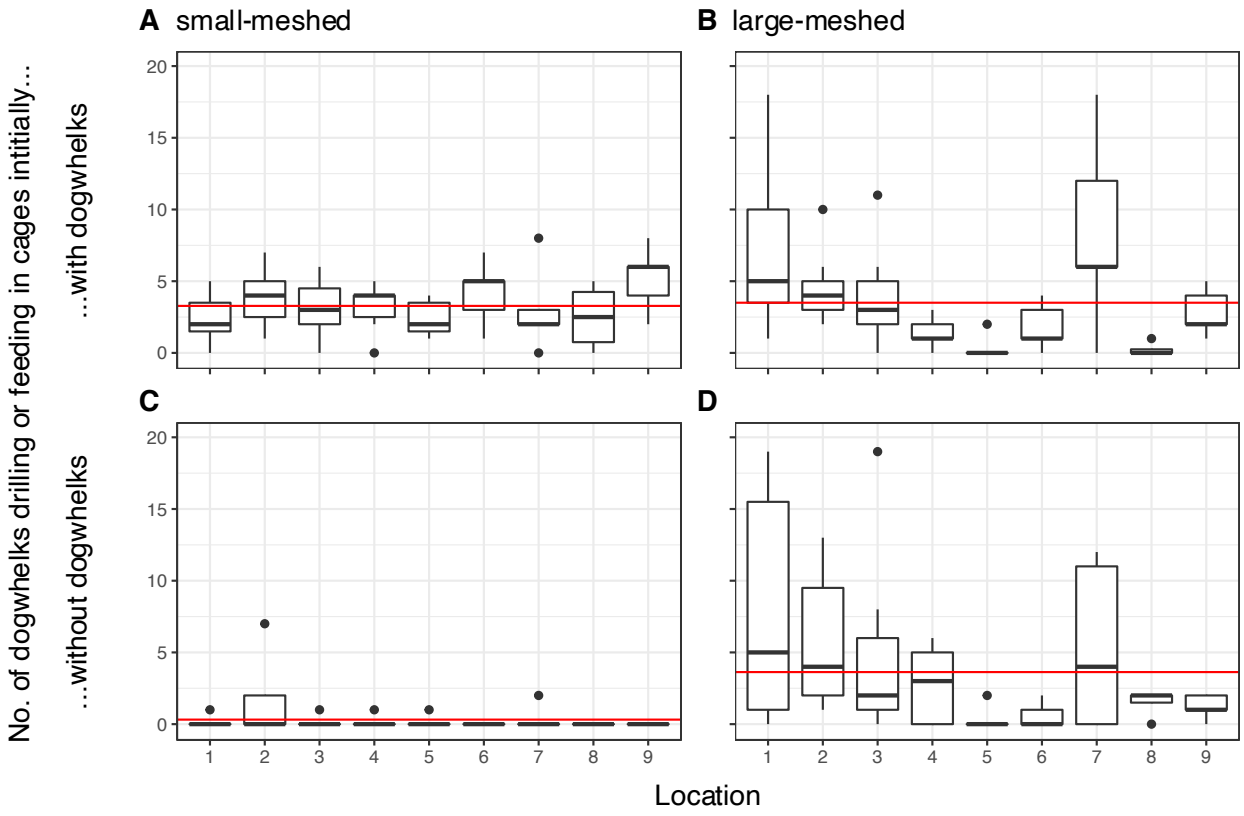

Figure S1: Number of prey-handling dogwhelks observed in each cage per visit for the four categories (A-D): small- and large-meshed cages, with or without 10 dogwhelks added per cage. Cages were visited 4-7 times, depending on weather conditions, during their 8 weeks in the field. Boxes indicate 25%, 50%, and 75% quartiles. Whiskers end on the smallest value within 1.5 times the interquartile range below the 25th percentile and on the largest value within 1.5 times the interquartile range above the 75th percentile. Outliers are >1.5 times the interquartile range beyond either end of the box and denoted by dots. Red horizontal lines indicate mean numbers of prey-handling dogwhelks within categories.