

Figure S1: Impact of duration and frequency of exposure to various predators on A) shell height, B) total wet weight, C) shell growth, D) proportion of dry mass in tissue, and E) shell thickness after 20 days. For 3 days week<sup>-1</sup> treatments oysters were exposed to predators for 3 consecutive days (con) or every other day (iso). Oysters were removed from water 1 day week<sup>-1</sup> to reduce biofouling, so 6 days week<sup>-1</sup> is equivalent to constant exposure.

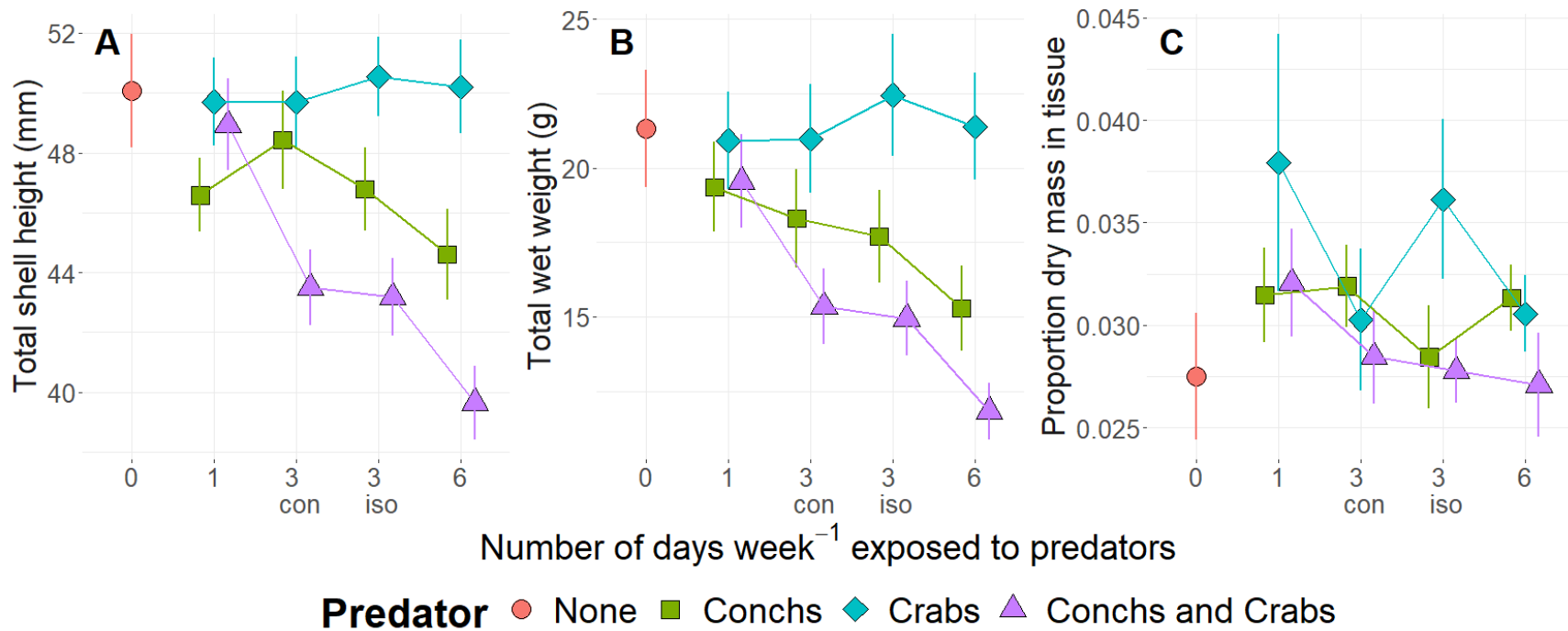


Figure S2: Impact of duration and frequency of exposure to various predators on A) shell height, B) total wet weight, and C) proportion of dry mass in tissue after 91 days. For 3 days week<sup>-1</sup> treatments oysters were exposed to predators for 3 consecutive days (con) or every other day (iso). Oysters were removed from water 1 day week<sup>-1</sup> to reduce biofouling, so 6 days week<sup>-1</sup> is equivalent to constant exposure.

Predator Treatment	Trait	Exposure	
		$\chi^2_4$	<i>p</i>
<i>Conchs</i>	Shell height (mm)	8.507	0.068
	log(Total wet weight)(g)	8.887	0.062
	Growth (mm)	6.171	0.193
	Proportion of dry mass in tissue	1.760	0.786
	Shell thickness index	7.687	0.135
<i>Crabs</i>	Shell height (mm)	4.292	0.380
	log(Total wet weight)(g)	1.422	0.906
	Growth (mm)	6.787	0.289
	Proportion of dry mass in tissue	4.083	0.540
	Shell thickness index	0.513	0.988
<i>Conchs and crabs</i>	Shell height (mm)	2.406	0.701
	log(Total wet weight)(g)	3.920	0.470
	Growth (mm)	7.616	0.215
	Proportion of dry mass in tissue	0.078	0.991
	Shell thickness index	3.195	0.611

Table S1: Results of linear mixed models comparing exposure regimes for each predator treatment after 20 days. P-values derived fitting models with and without treatment using maximum likelihood estimate techniques and comparing model fits to obtain p-values.