The following supplement accompanies the article

Effects of limitation stress and of disruptive stress on induced antigrazing defense in the bladder wrack *Fucus vesiculosus*

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Supplement. Complementary data on light dependency of photosynthesis in *Fucus vesiculosus* (Fig. S1) and detailed ANOVA reslts (Table S1 to S4b)

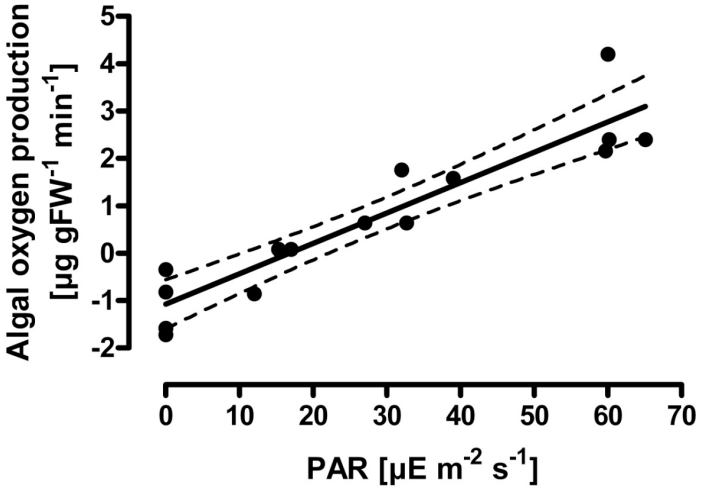

Fig. S1. *Fucus vesiculosus*. Oxygen production at 15°C as affected by light intensity. Negative data indicate consumption. Solid line represents the best fitting linear function ($0.06416 \times PAR \times 1.079$; $r^2 = 0.8644$, $p < 0.0001$) and the dashed lines are the 95% confidence interval. FW: fresh weight; PAR: photo-synthetically active radiation

Table S1. *Fucus vesiculosus*. Repeated-measures ANOVA of mannitol concentrations in grazed and ungrazed specimens exposed to 4 different light intensities at the end of the treatment phase (Treatments 23 to 26 in Table 1). Both grazer presence and photosynthetically active radiation (PAR) applied were used as within-subject factors

Source	**SS**	**df**	**MS**	***F***	**p**
Intercept	16690.19	1	16690.19	469.99	<0.0001
Error	177.56	5	35.51		
PAR	563.02	3	187.67	8.68	0.0014
Error	324.36	15	21.62		
Grazer presence	20.11	1	20.11	6.99	0.046
Error	14.39	5	2.88		
PAR × Grazer presence	3.38	3	1.13	0.14	0.932
Error	116.93	15	7.80		

Table S2. *Fucus vesiculosus*. Repeated-measures ANOVA of C:N ratios in grazed and ungrazed specimens exposed to3different light intensities at the end of the treatment phase (Treatments 8 to 10 in Table 1). Both grazer presence and photosynthetically active radiation (PAR) applied were used as within-subject factors. Data are Box-Cox-transformed

Source	**SS**	**df**	**MS**	***F***	**p**
Intercept	0.001453	1	0.001453	820.384	<0.001
Error	0.000012	7	0.000002		
PAR	0.000028	2	0.000014	5.936	0.014
Error	0.000033	14	0.000002		
Grazer presence	0.0000001	1	0.0000001	0.006	0.942
Error	0.000011	7	0.000002		
PAR × Grazer presence	0.000001	2	0.0000005	0.213	0.811
Error	0.000018	14	0.000001		

Table S3A. *Fucus vesiculosus*. Repeated-measures ANOVA of growth rates after treatment in the absence of *Idotea baltica*. Photosynthetically active radiation (PAR) and grazer presence during the test phase were used as within-subject factors (Treatments 8 to 10 in Table 1). The data were Box-Cox transformed

Source	**SS**	**df**	**MS**	***F***	**p**
Intercept	114.03	1	114.03	4362.3	<0.001
Error	0.18	7	0.03		
PAR	0.86	2	0.43	10.7	0.002
Error	0.56	14	0.04		
Grazer presence	0.79	1	0.79	30.7	<0.001
Error	0.18	7	0.03		
PAR × Grazer presence	0.50	2	0.25	15.2	<0.001
Error	0.23	14	0.02		

Table S3B. *Fucus vesiculosus*. Repeated-measures ANOVA of growth rates after treatment in the presence of *Idotea baltica*. Photosynthetically active radiation (PAR) and grazer presence during the test phase were used as within-subject factors (Treatments 8 to 10 in Table 1). The data were Box-Cox-transformed

Source	**SS**	**df**	**MS**	***F***	**p**
Intercept	11708.39	1	11708.39	251.11	<0.001
Error	326.29	7	46.63		
PAR	648.64	2	324.32	11.64	<0.001
Error	390.14	14	27.87		
Grazer presence	5.89	1	5.89	0.18	0.682
Error	225.21	7	32.17		
PAR × Grazer presence	4.88	2	2.44	0.06	0.943
Error	575.67	14	41.12		

Table S4A. *Fucus vesiculosus*. Factorial ANOVA of growth rates during incubation in the absence of *Idotea baltica* (Treatments 1 to 4 in Table 1). Temperature and photosynthetically active radiation (PAR) during the incubation were used as factors. The data were Box-Cox-transformed

Source	**SS**	**df**	**MS**	***F***	**p**
Intercept	33.78	1	33.78	300.1	<0.001
Temperature	0.04	1	0.04	0.3	0.56
PAR	3.04	1	3.04	27.0	<0.001
Temperature × PAR	0.70	1	0.70	6.2	0.02
Error	4.16	37	0.11		

Table S4B. *Fucus vesiculosus*. Factorial ANOVA of effect sizes (Hedges' *g*) obtained in 2-way choice feeding bioassays with specimens that were previously treated at 4 different light-temperature combinations (Treatments 1 to 4 in Table 1). PAR: photosynthetically active radiation

Source	**SS**	**df**	**MS**	***F***	**p**
Intercept	3.98	1	3.98	3.8	0.06
Temperature	9.00	1	9.00	8.6	0.006
PAR	0.02	1	0.02	0.02	0.89
Temperature × PAR	0.61	1	0.61	0.6	0.45
Error	38.75	37	1.05		