

*The following supplement accompanies the article*

# **Ecology of antifouling resistance in the bladder wrack *Fucus vesiculosus*: patterns of microfouling and antimicrobial protection**

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**Supplement 1. Additional data**

Table S1: ANOVA and Tukey's HSD posthoc results separately for the response variables (a) *Bacillus* settlement, (b) *Bacillus* growth, (c) *Amphora* settlement and (d) *Amphora* growth. Temp = temperature treatment (8, 12, 16, 21 or 23 °C); grazing: w/o = without grazers, w = with grazers, bold print = significant results

a

Treatment: Temperature x Grazing

Response: *Bacillus*-settlement

ANOVA

	SS	df	MS	F	p
Temp	3.84E+08	4	9.59E+07	3.5955	<b>0.011849</b>
Grazing	1.48E+08	1	1.48E+08	5.5493	<b>0.022451</b>
Temp x Grazing	2.19E+08	4	5.47E+07	2.0523	0.10119
Error	1.33E+09	50	2.67E+07		

Tukey's posthoc

Treatment #	Temp	Grazing	1	2	3	4	5	6	7	8	9	10
1	8	w/o		0.345323	0.098515	0.197943	0.999982	0.138699	0.199393	<b>0.00695</b>	<b>0.042691</b>	0.155861
2	8	w	0.345323		0.999762	1	0.641349	0.999977	1	0.834244	0.992881	0.999992
3	12	w/o	0.098515	0.999762		0.999999	0.258677	1	0.999999	0.991759	0.999999	1
4	12	w	0.197943	1	0.999999		0.439857	1	1	0.94656	0.999632	1
5	16	w/o	0.999982	0.641349	0.258677	0.439857		0.337581	0.442177	<b>0.026032</b>	0.129904	0.368753
6	16	w	0.138699	0.999977	1	1	0.337581		1	0.977832	0.999969	1
7	21	w/o	0.199393	1	0.999999	1	0.442177	1		0.945662	0.999615	1
8	21	w	<b>0.00695</b>	0.834244	0.991759	0.94656	<b>0.026032</b>	0.977832	0.945662		0.999694	0.969966
9	23	w/o	<b>0.042691</b>	0.992881	0.999999	0.999632	0.129904	0.999969	0.999615	0.999694		0.999925
10	23	w	0.155861	0.999992	1	1	0.368753	1	1	0.969966	0.999925	

b

Treatment: Temperature x Grazing

Response: *Bacillus* - Growth

ANOVA	SS	df	MS	F	p
Temp	3.478497E+09	4	8.696243E+08	3.4400	<b>0.014668</b>
Grazing	2.040570E+04	1	2.040570E+04	0.0001	0.992867
Temp x Grazing	5.817253E+08	4	1.454313E+08	0.5753	0.681829
Error	1.263975E+10	50	2.527949E+08		

Tukeys Posthoc			1	2	3	4	5	6	7	8	9	10
Treatment #	Temp	Grazing										
1	8	w/o		0.964146	0.986876	0.999872	0.998943	0.999963	0.887155	0.995638	0.999446	0.983215
2	8	w	0.964146		1.000000	0.999703	0.614885	0.773161	1.000000	0.999999	0.652522	0.393939
3	12	w/o	0.986876	1.000000		0.999978	0.726388	0.861623	0.999988	1.000000	0.760497	0.504021
4	12	w	0.999872	0.999703	0.999978		0.939860	0.984079	0.995313	0.999999	0.953667	0.803184
5	16	w/o	0.998943	0.614885	0.726388	0.939860		1.000000	0.437713	0.811889	1.000000	0.999999
6	16	w	0.999963	0.773161	0.861623	0.984079	1.000000		0.603681	0.919086	1.000000	0.999856
7	21	w/o	0.887155	1.000000	0.999988	0.995313	0.437713	0.603681		0.999855	0.474230	0.249338
8	21	w	0.995638	0.999999	1.000000	0.999999	0.811889	0.919086	0.999855		0.840561	0.603760
9	23	w/o	0.999446	0.652522	0.760497	0.953667	1.000000	1.000000	0.474230	0.840561		0.999995
10	23	w	0.983215	0.393939	0.504021	0.803184	0.999999	0.999856	0.249338	0.603760	0.999995	

C

Treatment: Temperature x Grazing

Response: *Amphora* settlement

ANOVA	SS	df	MS	F	p
Temp	178351	4	44588	3.95	<b>0.007310</b>
Grazing	2166	1	2166	0.19	0.663239
Temp x Grazing	222850	4	55713	4.94	<b>0.001968</b>
Error	564403	50	11288		

Tukey's posthoc			1	2	3	4	5	6	7	8	9	10
Treatment #	Temp	Grazing										
1	8	w/o		0.203664	<b>0.000252</b>	0.508051	0.250376	<b>0.008100</b>	0.265201	0.655367	0.897988	0.500876
2	8	w	0.203664		0.248472	0.999917	1.000000	0.955187	1.000000	0.998701	0.964383	0.999930
3	12	w/o	<b>0.000252</b>	0.248472		0.075482	0.202025	0.944424	0.189779	<b>0.043346</b>	<b>0.012521</b>	0.077485
4	12	w	0.508051	0.999917	0.075482		0.999987	0.716132	0.999993	1.000000	0.999579	1.000000
5	16	w/o	0.250376	1.000000	0.202025	0.999987		0.927641	1.000000	0.999612	0.980344	0.999989
6	16	w	<b>0.008100</b>	0.955187	0.944424	0.716132	0.927641		0.917886	0.571421	0.293717	0.722854
7	21	w/o	0.265201	1.000000	0.189779	0.999993	1.000000	0.917886		0.999737	0.983757	0.999994
8	21	w	0.655367	0.998701	<b>0.043346</b>	1.000000	0.999612	0.571421	0.999737		0.999985	1.000000
9	23	w/o	0.897988	0.964383	<b>0.012521</b>	0.999579	0.980344	0.293717	0.983757	0.999985		0.999521
10	23	w	0.500876	0.999930	0.077485	1.000000	0.999989	0.722854	0.999994	1.000000	0.999521	

d

Treatment: Temperature x Grazing  
 Response: *Amphora* Growth

ANOVA	SS	df	MS	F	p
Intercept	35112	1	35112	0.007386	0.931854
Temp	69809718	4	17452429	3.671391	<b>0.010680</b>
Grazing	9567228	1	9567228	2.012616	0.162200
Temp x Grazing	64124889	4	16031222	3.372418	<b>0.016100</b>
Error	237681411	50	4753628		

Tukey's posthoc			1	2	3	4	5	6	7	8	9	10
Treatment #	Temp	Grazing										
1	8	w/o		1.000000	<b>0.002704</b>	0.999991	1.000000	1.000000	0.998269	0.973385	0.999999	1.000000
2	8	w	1.000000		<b>0.005043</b>	1.000000	1.000000	1.000000	0.999847	0.993067	1.000000	1.000000
3	12	w/o	<b>0.002704</b>	<b>0.005043</b>		<b>0.009668</b>	<b>0.003386</b>	<b>0.006440</b>	<b>0.027895</b>	0.072199	<b>0.006808</b>	<b>0.005761</b>
4	12	w	0.999991	1.000000	<b>0.009668</b>		0.999998	1.000000	0.999997	0.999043	1.000000	1.000000
5	16	w/o	1.000000	1.000000	<b>0.003386</b>	0.999998		1.000000	0.999218	0.982821	1.000000	1.000000
6	16	w	1.000000	1.000000	<b>0.006440</b>	1.000000	1.000000		0.999956	0.996412	1.000000	1.000000
7	21	w/o	0.998269	0.999847	<b>0.027895</b>	0.999997	0.999218	0.999956		0.999997	0.999968	0.999920
8	21	w	0.973385	0.993067	0.072199	0.999043	0.982821	0.996412	0.999997		0.996944	0.995093
9	23	w/o	0.999999	1.000000	<b>0.006808</b>	1.000000	1.000000	1.000000	0.999968	0.996944		1.000000
10	23	w	1.000000	1.000000	<b>0.005761</b>	1.000000	1.000000	1.000000	0.999920	0.995093	1.000000	