



Figure S1: Experimental design for the early life exposures (gamete, embryo, larvae).

Table S1: ANOVA results for the gamete exposures.

Fertilization (1 hr)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	9	26.324	2.9249	212.92	< 2e-16 ***
Temperature	1	0.709	0.7087	51.59	1.22e-09 ***
Salinity:Temperature	9	0.48	0.0533	3.88	0.000638 ***
Residuals	60	0.824	0.0137		
Hatch Rate (24 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	9	23.761	2.6401	64	< 2e-16 ***
Temperature	1	1.725	1.725	41.81	3.79e-08 ***
Salinity:Temperature	6	3.816	0.636	15.42	5.51e-10 ***
Residuals	51	2.104	0.0413		
Mortality (96 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	5	2.035	0.407	4.78	0.002144 **
Temperature	1	1.2394	1.2394	14.556	0.000567 ***
Salinity:Temperature	4	0.3225	0.0806	0.947	0.449351
Residuals	33	2.8098	0.0851		
Abnormality (96 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	5	0.4212	0.08424	98.3	<2e-16 ***
Temperature	1	0.2361	0.23606	275.5	<2e-16 ***
Salinity:Temperature	5	0.5135	0.10269	119.8	<2e-16 ***
Residuals	33	0.0283	0.00086		
Mean Length (96 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	6	34.44	5.74	6.653	0.000122 ***
Temperature	1	37.57	37.57	43.544	1.94e-07 ***
Salinity:Temperature	5	2.82	0.56	0.653	0.661575
Residuals	32	27.61	0.86		

Significance codes: *** < 0.001, ** < 0.01, * < 0.05

“Mean Sq” is the sum of squares divided by the degrees of freedom.

Table S2: ANOVA results for the embryo exposures.

Hatch (48 hr)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	8	6.852	0.8565	33.953	<2e-16 ***
Temperature	1	7.853	7.853	496.54	<2e-16 ***
Salinity:Temperature	8	10.434	1.304	82.46	<2e-16 ***
Residuals	57	0.902	0.016		
Mortality (96 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	8	6.852	0.8565	33.953	<2e-16 ***
Temperature	1	0.058	0.0584	1.352	0.252
Salinity:Temperature	4	0.327	0.0819	1.895	0.131
Residuals	39	1.684	0.0432		
Abnormality (96 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	8	6.852	0.8565	33.953	<2e-16 ***
Temperature	1	0.1797	0.17971	18.74	0.000145 ***
Salinity:Temperature	4	0.4222	0.10556	11.01	1.13e-05 ***
Residuals	31	0.2973	0.00959		
Mean Length (96 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	5	33.63	6.73	7.349	0.000121 ***
Temperature	1	241.08	241.08	263.43	< 2e-16 ***
Salinity:Temperature	4	4.54	1.14	1.241	0.31393
Residuals	31	28.37	0.92		

Significance codes: *** < 0.001, ** < 0.01, * < 0.05

“Mean Sq” is the sum of squares divided by the degrees of freedom.

Table S3: ANOVA results for the larval exposures.

Mortality (96 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	9	12.767	1.4186	52.79	<2e-16 ***
Temperature	1	0.151	0.1514	5.633	0.0208 *
Salinity:Temperature	9	0.569	0.0632	2.351	0.0240 *
Residuals	60	1.612	0.0269		
Abnormality	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	8	6.852	0.8565	33.953	< 2e-16 ***
Temperature	1	0.533	0.5333	21.14	0.0000261 ***
Salinity:Temperature	8	0.671	0.0839	3.327	0.00366 ***
Residuals	54	1.362	0.0252		
Mean Length (96 hrs)	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	8	615.1	76.9	17.02	4.5E-12 ***
Temperature	1	2407.6	2407.6	532.98	< 2e-16 ***
Salinity:Temperature	8	644.1	80.5	17.82	1.88E-12 ***
Residuals	52	234.9	4.5		

Significance codes: ***< 0.001, ** < 0.001, * < 0.05

“Mean Sq” is the sum of squares divided by the degrees of freedom.

Table S4: ANOVA results for the juvenile exposure to an acute salinity change.

	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	9	83.45	9.272	847.172	<2e-16 ***
Temperature	1	9.67	9.674	883.916	<2e-16 ***
Time	6	32.54	5.424	495.546	<2e-16 ***
Salinity:Temperature	9	3.28	0.365	33.338	<2e-16 ***
Salinity:Time	54	23.87	0.442	40.385	<2e-16 ***
Temperature:Time	6	3.31	0.551	50.339	<2e-16 ***
Salinity:Temperature:Time	54	5.74	0.106	9.715	<2e-16 ***
Residuals	280	3.06	0.011		

Significance codes: ***< 0.001, ** < 0.001, * < 0.05

“Mean Sq” is the sum of squares divided by the degrees of freedom.

Table S5: ANOVA results for the juvenile exposure to a gradual salinity change.

	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	9	29.61	3.29	394.783	< 2e-16 ***
Temperature	1	17.83	17.826	2139.062	< 2e-16 ***
Time	15	72.51	4.834	580.081	< 2e-16 ***
Salinity:Temperature	9	2.17	0.241	28.926	< 2e-16 ***
Salinity:Time	135	24.49	0.181	21.77	< 2e-16 ***
Temperature:Time	15	4.49	0.299	35.912	< 2e-16 ***
Salinity:Temperature:Time	135	1.57	0.012	1.399	0.00431 **
Residuals	640	5.33	0.008		

Significance codes: ***< 0.001, ** < 0.001, * < 0.05

“Mean Sq” is the sum of squares divided by the degrees of freedom.

Table S6: ANOVA results for survival at the end of the adult exposure to different salinity regimes.

	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	4	6.87	1.7175	337.1	<2e-16 ***
Residuals	18	0.092	0.0051		

Significance codes: ***< 0.001, ** < 0.001, * < 0.05

“Mean Sq” is the sum of squares divided by the degrees of freedom.

Table S7: ANOVA results for condition index at the end of the adult exposure to different salinity regimes.

	Degrees of freedom	Sum of Squares	Mean Sq	F value	Pr(>F)
Salinity	4	98.49	24.623	43.92	<2e-16 ***
Residuals	294	164.81	0.561		

Significance codes: ***< 0.001, ** < 0.001, * < 0.05

“Mean Sq” is the sum of squares divided by the degrees of freedom.