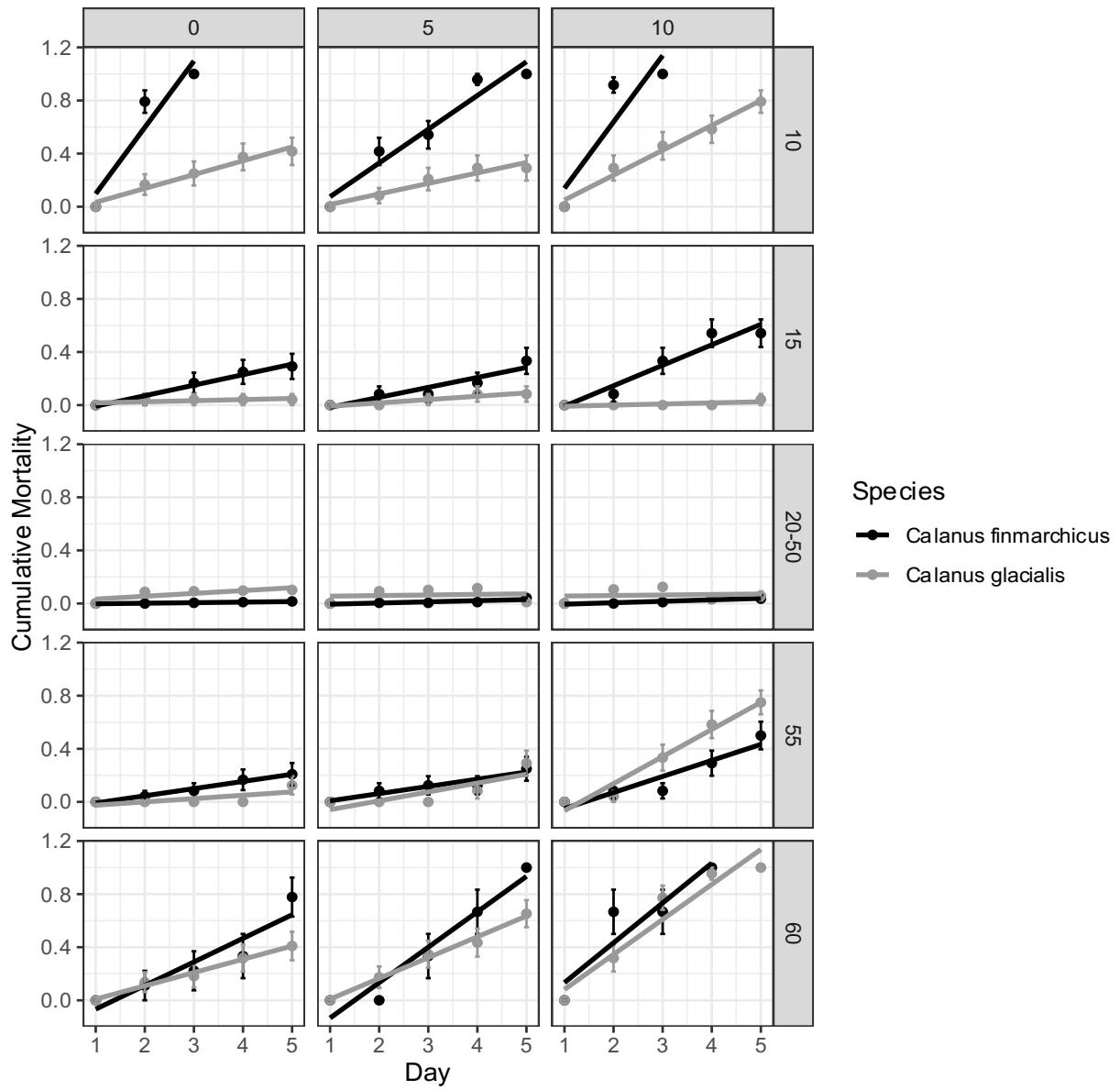


**Figure S1:** Fitted linear models on cumulative mortality estimates at each exposure period. The points represent the mean mortality estimated from the 24 animals in the multi-well plates, and the error bars denote the standard error of these estimates.



**Figure S2:** Fitted linear models on cumulative mortality estimates at each exposure period. The points represent the mean mortality estimated from the 24 animals in the multi-well plates, and the error bars denote the standard error of these estimates.

**Table S1:** Intercepts and slopes with 95% Confidence Intervals calculated from linear regression between cumulative mortality and exposure time.

Species	Temperature	Salinity	Slope	95% C.I.	Intercept	95% C.I.	R <sup>2</sup>		
<i>Calanus finmarchicus</i>	0	10	0.5 ± 0.04	0.46-0.54	0.1 ± 0.05	-0.01 - 0.2	0.69		
		15	0.08 ± 0.02	0.04 - 0.12	-0.01 ± 0.05	-0.12 - 0.1	0.10		
		20-50	0 ± 0	0 - 0.01	-0.01 ± 0.05	-0.05 - 0.03	0.02		
		55	0.05 ± 0.02	0.02 - 0.09	0 ± 0.01	-0.1 - 0.08	-		
		60	0.18 ± 0.04	0.1 - 0.26	-0.07 ± 0.1	-0.27 - 0.13	0.31		
		10	0.25 ± 0.02	0.21 - 0.3	0.07 ± 0.05	-0.03 - 0.18	0.53		
	5	15	0.08 ± 0.02	0.03 - 0.12	-0.02 ± 0.05	-0.12 - 0.09	0.10		
		20-50	0.01 ± 0.01	0 - 0.02	-0.01 ± 0.01	-0.04 - 0.02	0.02		
		55	0.05 ± 0.02	0.01 - 0.09	0.01 ± 0.05	-0.09 - 0.11	0.06		
		60	0.27 ± 0.03	0.2 - 0.33	-0.13 ± 0.08	-0.3 - 0.03	0.59		
		10	0.5 ± 0.04	0.43 - 0.57	0.14 ± 0.05	0.04 - 0.23	0.72		
		15	0.15 ± 0.03	0.1 - 0.21	-0.01 ± 0.06	-0.14 - 0.12	0.23		
	10	20-50	0 ± 0	0 - 0	0 ± 0	0 - 0	-		
		55	0.12 ± 0.02	0.08 - 0.17	-0.05 ± 0.06	-0.16 - 0.06	0.19		
		60	0.3 ± 0.06	0.19 - 0.41	0.13 ± 0.1	-0.08 - 0.34	0.46		
		<i>Calanus glacialis</i>	0	5	0.18 ± 0.03	0.13 - 0.23	0.31 ± 0.06	0.19 - 0.43	0.31
				10	0.1 ± 0.03	0.05 - 0.16	0.03 ± 0.06	-0.09 - 0.16	0.12
				15	0.01 ± 0.01	-0.01 - 0.03	0.02 ± 0.03	-0.04 - 0.07	0.00
20	0 ± 0			0 - 0	0 ± 0	0 - 0	-		
55	0.03 ± 0.01			0.01 - 0.04	-0.03 ± 0.02	-0.07 - 0.02	0.05		
60	0.1 ± 0.03			0.05 - 0.15	0.01 ± 0.06	-0.12 - 0.14	0.12		
5	5	0.31 ± 0.03	0.25 - 0.37	0.23 ± 0.05	0.12 - 0.33	0.55			
	10	0.08 ± 0.02	0.03 - 0.13	0.02 ± 0.06	-0.1 - 0.13	0.09			
	15	0.02 ± 0.01	0 - 0.05	-0.01 ± 0.03	-0.07 - 0.05	0.03			
	20-50	0 ± 0	0 - 0	0 ± 0	0 - 0	-			
	55	0.07 ± 0.02	0.03 - 0.1	-0.06 ± 0.04	-0.14 - 0.02	0.13			
	60	0.16 ± 0.03	0.1 - 0.21	0.01 ± 0.07	-0.12 - 0.14	0.22			
10	5	0.5 ± 0.04	0.43 - 0.57	0.14 ± 0.05	0.04 - 0.23	0.72			
	10	0.19 ± 0.03	0.13 - 0.24	0.05 ± 0.07	-0.08 - 0.18	0.29			

	15	0.01 ± 0.01	0 - 0.03	-0.01 ± 0.01	-0.04 - 0.02	0.02
	20-50	0.01 ± 0.01	0 - 0.03	0.01 ± 0.02	-0.04 - 0.02	-
	55	0.2 ± 0.02	0.16 - 0.25	-0.07 ± 0.06	-0.19 - 0.05	0.37
	60	0.26 ± 0.02	0.22 - 0.31	0.08 ± 0.05	-0.02 - 0.19	0.58

**Table S2:** Predicted LC<sub>50</sub> values with 95% Confidence intervals

salinity	Temperature (°C)	Species	Exposure (h)	LC50	95% C.I	p-value	
5-33	0	Calanus finmarchicus	24	11.8	10.3-12.9	0	
			48	13.4	12.9-14	0.48	
			72	13.8	13.2-14.5	0.471	
			96	14	13.3-14.7	0.462	
		Calanus glacialis	24	7.3	5.6-8.7	0.498	
			48	8	6.4-9.2	0	
			72	8.8	7.5-9.8	0	
			96	9	7.8-10	0.504	
	5	Calanus finmarchicus	24	9	8.2-10.1	0.474	
			48	10.2	8.1-11.5	0.517	
			72	12.5	12-13.2	0.476	
			96	13.5	12.6-14.7	0.508	
		Calanus glacialis	24	6.9	6.1-7.6	0.49	
			48	7.7	7.1-8.6	0.492	
			72	8.5	7.8-9.4	0.46	
			96	8.5	7.8-9.4	0.46	
10	0	Calanus finmarchicus	24	12.7	11.8-13.5	0.505	
			48	14	13.4-14.7	0.489	
			72	14.6	13.9-15.4	0.472	
			96	14.6	13.9-15.4	0.472	
		Calanus glacialis	24	8.7	7.4-9.7	0.5	
			48	9.9	9.1-10.8	0.503	
			72	10.4	9.5-11.2	0.498	
			96	11.2	10.3-12.2	0	
	33-60	0	Calanus finmarchicus	24	-	-	-
				48	-	-	-
				72	-	-	-
				96	59.2	56.6-64.2	1
			Calanus glacialis	24	-	-	-
				48	-	-	-
				72	-	-	-
				96	63.6	59.6-70.8	0.535
5		Calanus finmarchicus	24	-	-	-	
			48	-	-	-	
			72	61	57.5-68.2	0.5	
			96	57	55.6-59	0.511	
		Calanus glacialis	24	-	-	-	
			48	-	-	-	
			72	62.9	59.4-68.5	0.514	
			96	58.3	56.4-61.1	0.496	
10	Calanus finmarchicus	24	61.4	58.1-68.5	0.517		
		48	61.7	57.8-70.4	0.536		
		72	56.3	54.9-58.1	0.498		
		96	55	53.8-56.4	0.497		
	Calanus glacialis	24	67.1	61.4-78.7	0.515		
		48	57.1	55.7-59	0.485		
		72	54.6	53.5-55.7	0.483		
		96	53.3	52.2-54.3	0.483		

**Table S3:** Model coefficients for 2<sup>nd</sup> degree polynomial equations

Salinity	Exposure time (h)	Temperature (°C)	Species	a	b	c
<33	24	0	<i>Calanus finmarchicus</i>	0.003 ± 0	-0.126 ± 0.009	2.74 ± 0.57
	48			0.002 ± 0	-0.171 ± 0.015	1.503 ± 0.079
	72			0.002 ± 0	-0.205 ± 0.033	2.057 ± 0.151
	96			0.004 ± 0	-0.127 ± 0.009	4.229 ± 0.714
	24	10		0.001 ± 0	-0.212 ± 0.013	1.552 ± 0.079
	48			0.002 ± 0	-0.052 ± 0.003	2.604 ± 0.13
	72			0.004 ± 0	-0.129 ± 0.01	1.075 ± 0.05
	96			0.001 ± 0	-0.202 ± 0.015	1.641 ± 0.082
	24	0	<i>Calanus glacialis</i>	0 ± 0	-0.062 ± 0.003	2.556 ± 0.148
	48			0.004 ± 0	-0.024 ± 0.013	1.212 ± 0.053
	72			0.001 ± 0	-0.2 ± 0.015	0.472 ± 0.284
	96			0 ± 0	-0.116 ± 0.024	2.558 ± 0.15
	24	10		0.004 ± 0	-0.04 ± 0.02	2.388 ± 0.53
	48			0.002 ± 0	-0.197 ± 0.014	0.805 ± 0.44
	72			0.001 ± 0	-0.154 ± 0.028	2.384 ± 0.139
	96			0.004 ± 0	-0.067 ± 0.024	3.091 ± 0.625
>33	24	0	<i>Calanus finmarchicus</i>	0 ± 0	-0.205 ± 0.014	1.322 ± 0.533
	48			0.002 ± 0	-0.034 ± 0.013	2.612 ± 0.142
	72			0.004 ± 0	-0.142 ± 0.028	0.691 ± 0.293
	96			0.001 ± 0	-0.209 ± 0.017	2.84 ± 0.611
	24	10		0.002 ± 0	-0.045 ± 0.015	2.716 ± 0.167
	48			0.004 ± 0	-0.131 ± 0.021	0.922 ± 0.331
	72			0.001 ± 0	-0.209 ± 0.017	2.661 ± 0.459
	96			0.001 ± 0	-0.079 ± 0.018	2.716 ± 0.167
	24	5		0.002 ± 0	-0.115 ± 0.025	1.613 ± 0.412
	48			0.001 ± 0	-0.101 ± 0.01	2.301 ± 0.538
	72			0.002 ± 0	-0.102 ± 0.024	1.137 ± 0.081
	96			0.002 ± 0	-0.199 ± 0.033	2.076 ± 0.545
	24		<i>Calanus glacialis</i>	0.001 ± 0	-0.108 ± 0.01	4.057 ± 0.726
	48			0.003 ± 0	-0.077 ± 0.02	1.226 ± 0.082
	72			0.002 ± 0	-0.213 ± 0.034	1.573 ± 0.44
	96			0.002 ± 0	-0.114 ± 0.01	4.275 ± 0.739
	24	0		0 ± 0	-0.172 ± 0.026	1.332 ± 0.082
	48			0.002 ± 0	0.006 ± 0.016	3.404 ± 0.582
	72			0.002 ± 0	-0.114 ± 0.01	-0.154 ± 0.354
	96			0.001 ± 0	-0.182 ± 0.026	1.348 ± 0.082
24	10		0.002 ± 0	-0.06 ± 0.023	3.497 ± 0.587	
48			0.002 ± 0	-0.118 ± 0.01	1.177 ± 0.5	
72			0.002 ± 0	-0.177 ± 0.028	1.345 ± 0.079	
96			0.003 ± 0	-0.134 ± 0.026	3.375 ± 0.632	

**Table S4:** Model coefficients for 3<sup>rd</sup> degree polynomial equations

Salinity	Exposure time (h)	Temperature (°C)	Species	$M_{ip}$	k	$S_{ip}$	$g^3$
<33	24	5	<i>Calanus finmarchicus</i>	$-0.002 \pm 0.025$	$0.005 \pm 0.003$	$26.017 \pm 1.9$	$0 \pm 0$
	48			$-0.002 \pm 0.027$	$0.01 \pm 0.005$	$25.355 \pm 1.498$	$0 \pm 0$
	72			$0 \pm 0.021$	$0.017 \pm 0.004$	$26.007 \pm 0.899$	$0 \pm 0$
	96			$0.056 \pm 0.055$	$0.016 \pm 0.011$	$29.987 \pm 4.034$	$0 \pm 0$
	24		<i>Calanus glacialis</i>	$-0.006 \pm 0.018$	$0.018 \pm 0.004$	$22.756 \pm 0.588$	$0 \pm 0$
	48			$0.002 \pm 0.022$	$0.012 \pm 0.004$	$23.609 \pm 0.879$	$0 \pm 0$
	72			$0.008 \pm 0.023$	$0.01 \pm 0.003$	$24.99 \pm 1.371$	$0 \pm 0$
	96			$0.008 \pm 0.023$	$0.01 \pm 0.003$	$24.99 \pm 1.371$	$0 \pm 0$