STUDENT SHEET 4b

Copepod survival Nauplii data sheet

Current pH

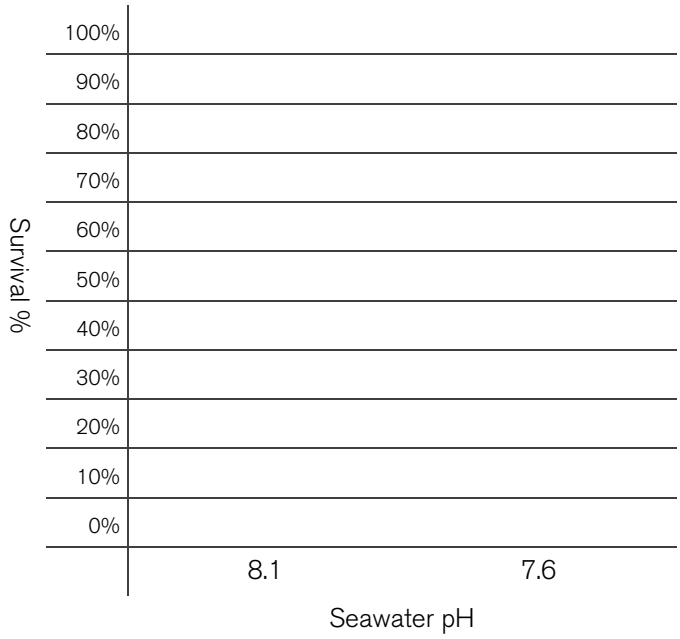
pH	Batch	Number of alive Calanus day 0	day 7	% Survival
8.1	1	50	46	
8.1	2	50	38	
8.1	3	50	42	
8.1	4	30	30	
8.1	5	30	25	
8.1	6	30	30	
8.1	7	30	22	
8.1	8	30	21	
8.1	9	50	28	
8.1	10	50	46	
8.1	11	50	23	
	Average			

Future pH

pH	Batch	Number of alive Calanus day 0	day 7	% Survival
7.6	1	50	34	
7.6	2	50	43	
7.6	3	50	26	
7.6	4	50	34	
7.6	5	50	20	
7.6	6	50	32	
7.6	7	50	14	
7.6	8	50	20	
7.6	9	50	39	
7.6	10	50	19	
7.6	11	50	39	
	Average			

30-50 Calanus copepod nauplii (larvae) were counted into each exposure at the start. Experiments ran for 7 days and alive nauplii were counted to see how many survived.

Copepod Nauplii survival rates



Answer all questions:

1. Calculate the survival % for all batches of copepods and fill in the relevant boxes.
2. Calculate the average survival % for both sets of data.
3. What does this data tell you about the impact of future ocean acidification on copepod nauplii?
4. Compare your graph showing the survival rate for nauplii to the graph showing the survival rate for adult copepods. What differences can you see?
5. Based on this data explain what you think might happen to the copepod population if the pH of the ocean continues to decrease.
6. Given that copepods are primary consumers, what impact might this have on the arctic ecosystem as a whole?