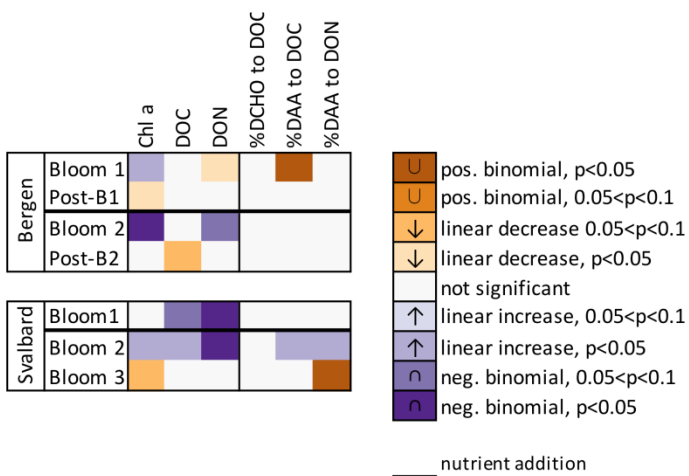


1 **Supplemental Information**

2

3 **Ocean acidification modifies biomolecule composition in organic matter through complex**
4 **interactions**

5 Julia Grosse, Sonja Endres, Anja Engel



6

7 **Fig. S1:** Heat-map summarizes significance levels for organic matter parameters as calculated in

8 Fig.1.

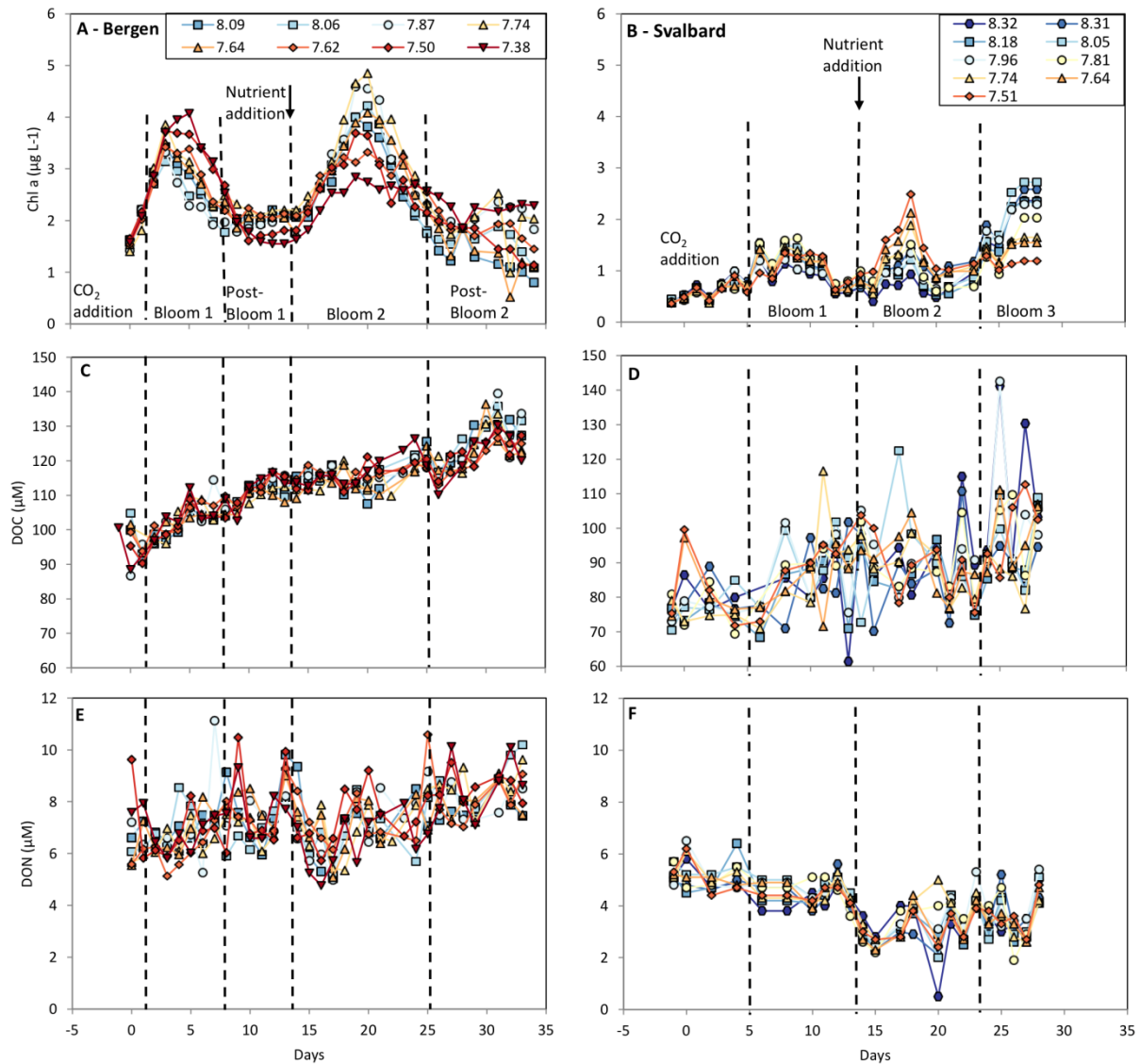


Fig. S2: Development of chlorophyll a, DOC and DON concentrations in all mesocosms in Raunefjord/ Bergen (A, C, E) and Kongsfjorden/ Svalbard (B, D, F). Shown are individual measurements in all mesocosms. The bloom phases and time point of nutrient additions are indicated as identified by Schulz et al. 2013, 2017. For symbol identification see also Tab 1.

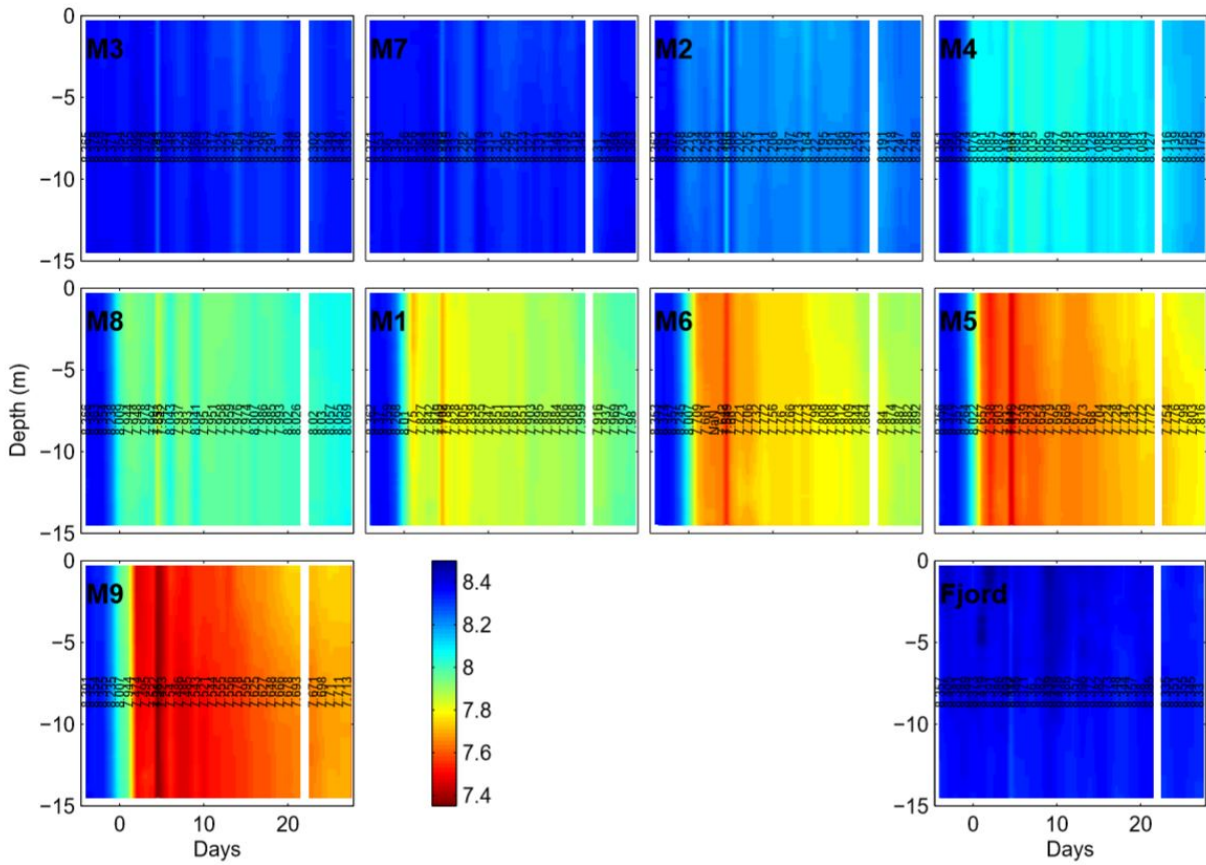


Fig. S3: Temporal pH dynamics in each of the Svalbard mesocosm and the fjord as published by Schulz et al. 2013. Recorded pH values were corrected by calculated pH from measured dissolved inorganic carbon and total alkalinity and are reported on the total scale. Black numbers denote daily depth-averaged (0.3–12m) mean pH values.

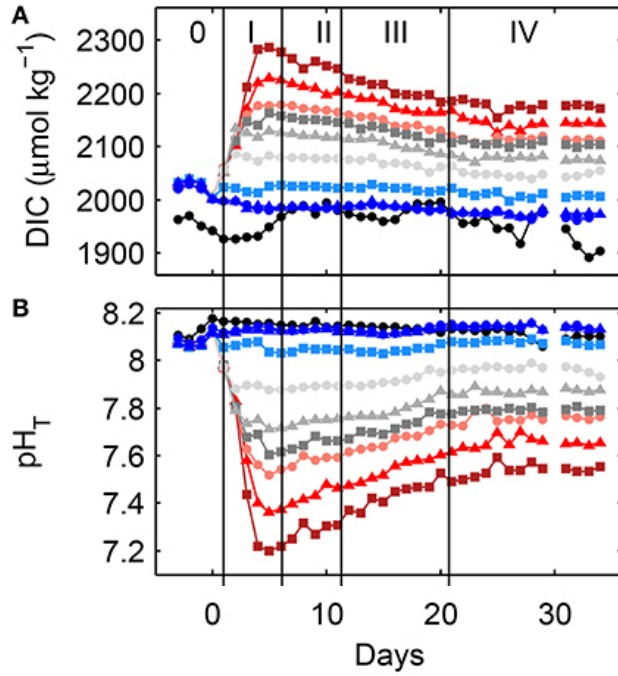


Fig. S4: Changes in depth-integrated (0–23 m) measured dissolved inorganic carbon (A) and pH_T (B) at in-situ conditions for Bergen mesocosms as published by Schulz et al. 2017. Vertical lines and Roman numbers illustrate the different phases during this experiment: 0 = CO_2 addition, I = Bloom 1, II = Post-Bloom 1, III = Bloom 2, IV = Post-Bloom 2.

Symbols and color refer to different mesocosms:

● = pH 8.18 (fjord), ● = pH 8.14 (M2), ▲ = pH 8.13, ■ = pH 8.04, ● = pH 7.88, ▲ = pH 7.71, ■ = pH 7.60, ● = pH 7.52, ▲ = pH 7.36, ■ = pH 7.20

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