1 *Supplementary material*

3 Cantarero et al., "Lipid remodeling in phytoplankton exposed to multi-environmental drivers in a

4 mesocosm experiment"

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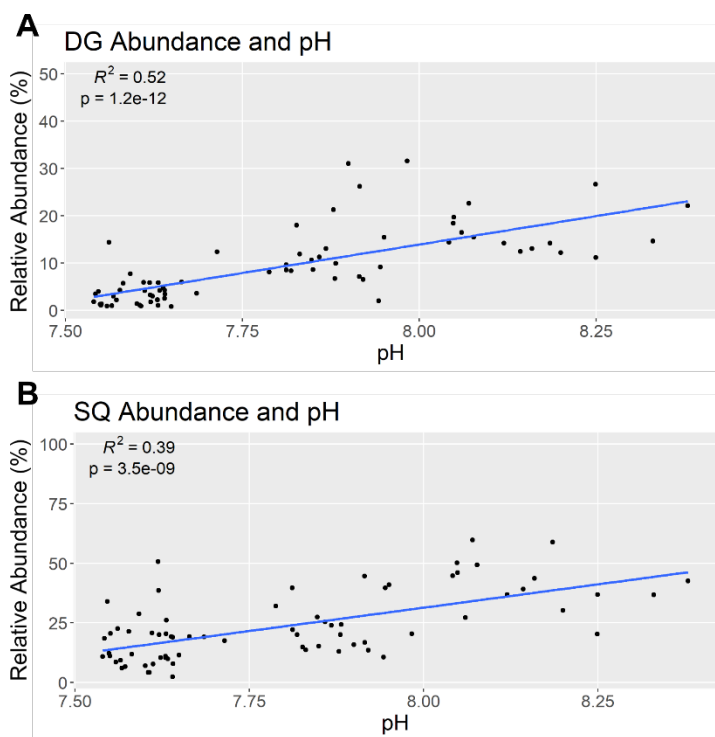

7

8 **Figure S1: Linear regressions between pH and relative abundance of IPL classes DG (A) and SQ (B). The statistical significance of**
9 **regression is denoted by the p value in the upper left corner, whereas the goodness of fit is denoted by R^2.**

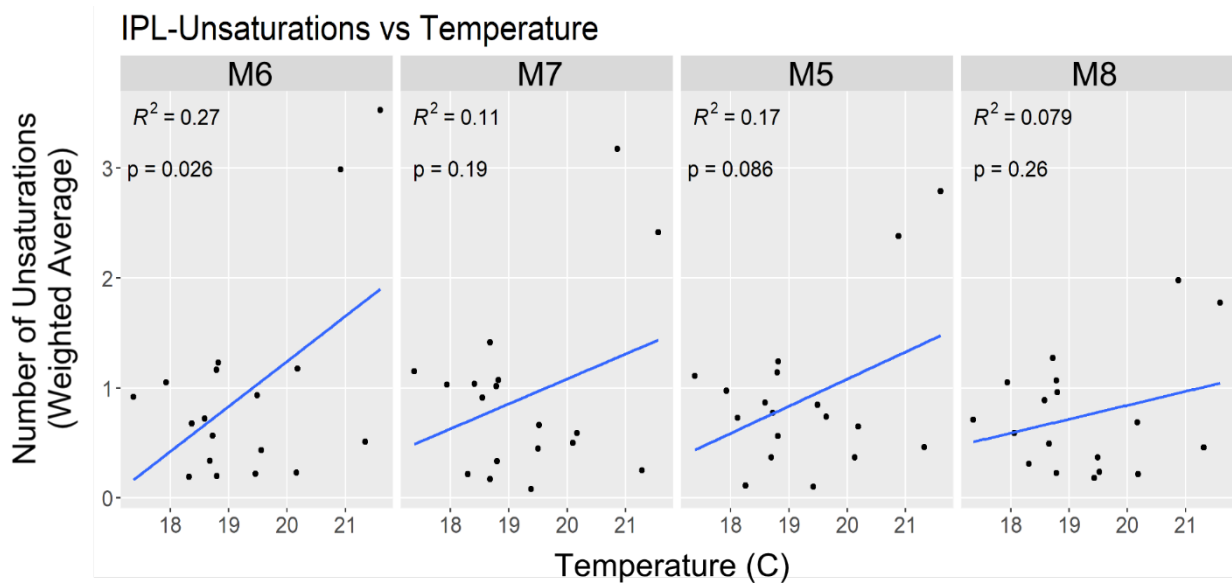
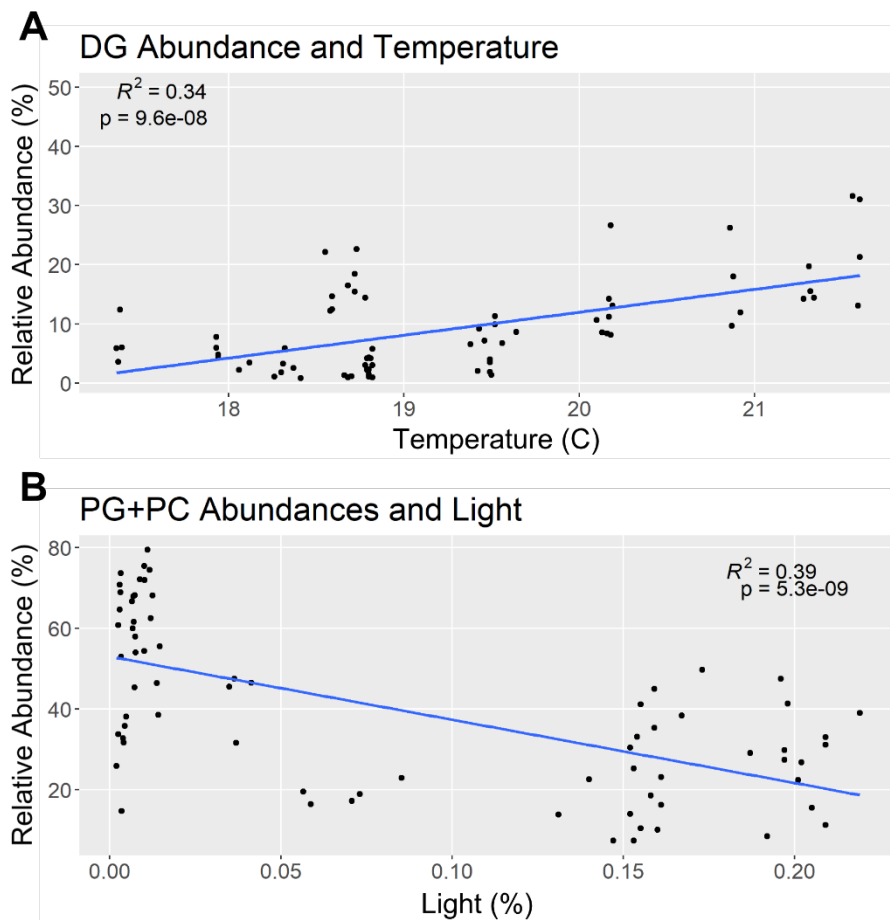



Figure S2. Linear regressions between Temperature and the number of unsaturation in IPL molecules (weighted average). Statistical significance of regression denoted by p value in upper left corner, and goodness of fit by R^2.

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14   **Figure S3. Linear regression between Temperature and the relative abundance of DG lipids. B) Linear regression between the**

15   **surface-normalized light level (expressed as a %) and PG+PC relative abundances. Goodness of fit reported as R^2 and statistical**

16 significance (p value) is greater than the 99th percentile confidence interval.

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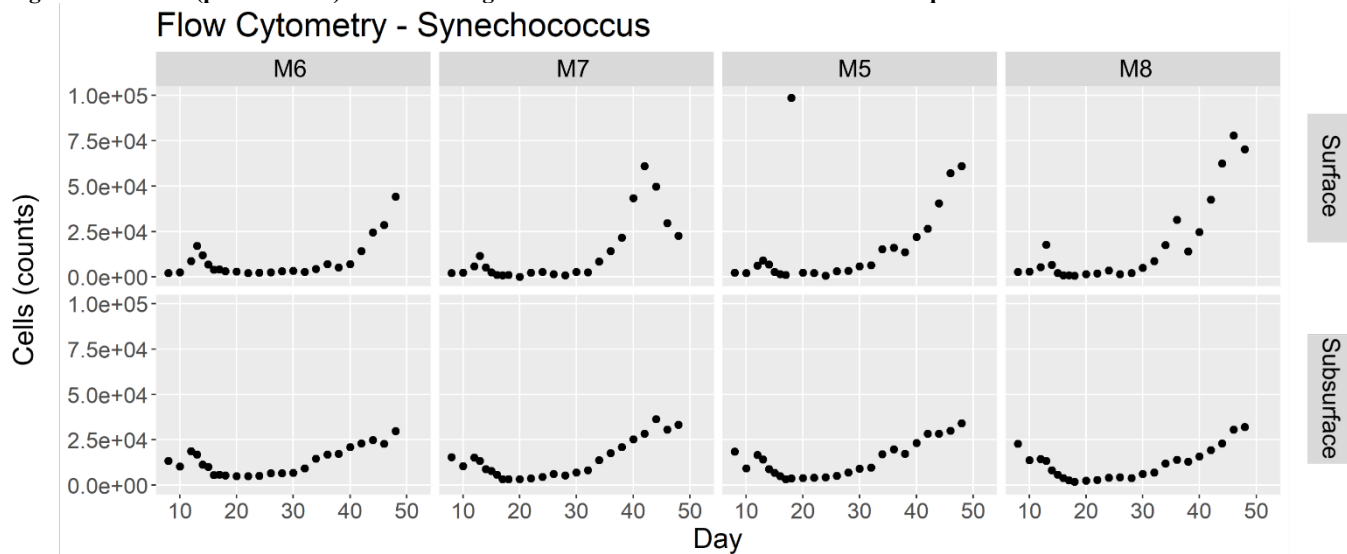
19 **Figure S4. Flow cytometry results of *Synechococcus* cell counts in surface and subsurface waters for each mesocosm.**

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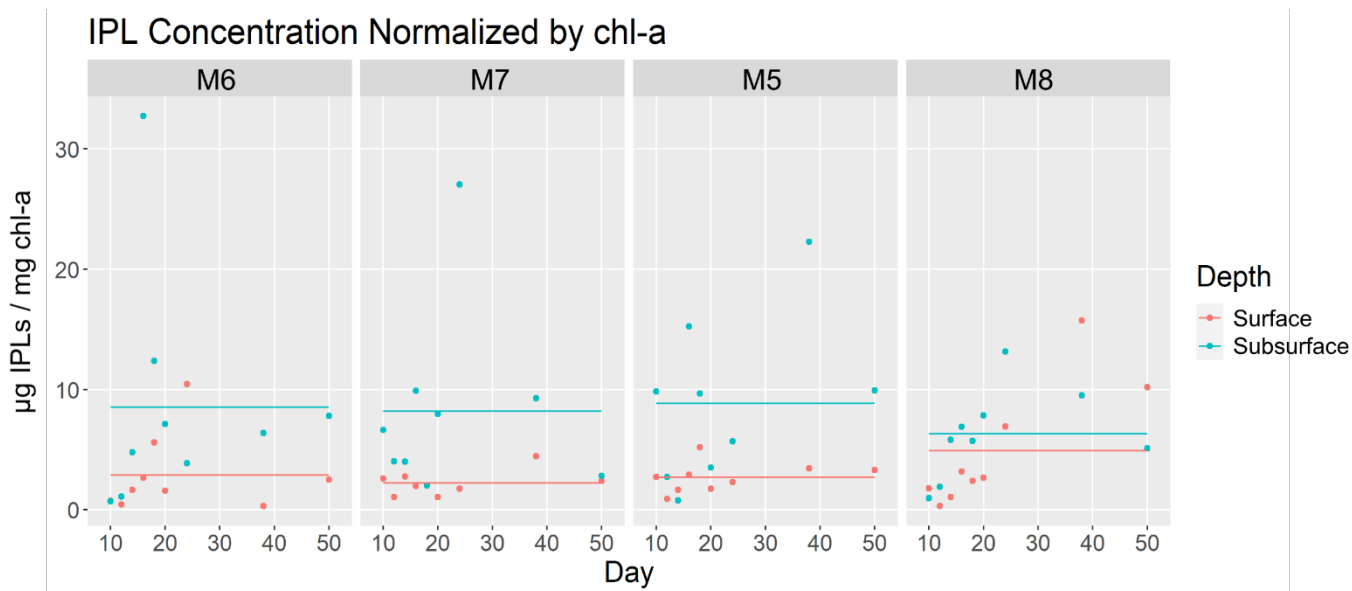
23 **Figure S5. Ratios of IPL/chl-a concentration (μg/mg) presented for surface and subsurface waters in each mesocosm. Solid lines**
24 **represent average ratios for surface (red) and subsurface (blue) samples.**

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