# Changes in Heterotrophic Picoplankton Community Structure after Induction of a 

## Phytoplankton Bloom under Different Light Regimes

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Table S1. Relative abundance (\%) of the most abundant ( $\geq 1 \%$ ) OTUs. J: January, F: February, C: control (baseline light intensity), H: high light intensity.

|  | $\mathrm{JC}$ | d11 | d15 | d15 | $\begin{aligned} & \mathrm{JH} \\ & \mathrm{~d} 1 \\ & \hline \end{aligned}$ | d11 | d15 | d15 | $\begin{aligned} & \mathrm{FC} \\ & \mathrm{~d} 1 \\ & \hline \end{aligned}$ | d11 | d15 | d15 | $\begin{aligned} & \text { FH } \\ & \text { d1 } \\ & \hline \end{aligned}$ | d11 | d15 | d15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Otu0001 | 22.9 | 7.6 | 6.5 | 13.4 | 22.1 | 17.1 | 24.2 | 10.7 | 20.1 | 8.0 | 14.2 | 32.3 | 15.0 | 8.9 | 22.6 | 55.7 |
| Otu0002 | 18.4 | 58.4 | 21.8 | 43.9 | 16.5 | 71.0 | 57.1 | 4.0 | 19.3 | 66.2 | 39.0 | 5.5 | 12.3 | 68.6 | 37.1 | 2.1 |
| Otu0003 | 2.4 |  |  |  | 2.9 |  |  |  | 13.2 |  |  |  |  |  |  |  |
| Otu0004 | 11.6 | 1.7 | 1.5 | 4.0 | 15.0 |  |  |  | 12.0 |  | 1.3 | 4.2 | 15.8 | 1.6 | 4.5 | 2.4 |
| Otu0005 | 2.0 |  |  |  | 2.4 |  |  |  | 8.5 |  |  |  |  |  |  |  |
| Otu0006 | 1.4 |  |  | 1.0 | 2.8 |  |  |  | 2.1 |  |  | 2.7 | 2.2 |  |  | 3.8 |
| Otu0007 | 3.1 |  | 1.1 |  | 2.7 |  |  | 2.2 | 1.3 |  |  |  | 2.3 |  |  |  |
| Otu0008 |  | 1.6 | 1.9 | 5.4 | 1.3 |  |  | 3.6 | 1.0 |  |  |  | 1.4 |  |  |  |
| Otu0009 | 4.1 |  | 5.3 |  | 3.9 |  |  | 7.9 | 1.4 |  |  |  | 5.5 |  |  |  |
| Otu0011 |  | 2.9 | 2.4 |  |  |  | 2.1 |  |  | 1.3 | 7.2 | 8.4 |  | 3.5 | 3.9 |  |
| Otu0012 | 1.1 |  |  | 1.3 | 1.6 |  |  |  | 1.3 |  |  |  | 1.9 |  |  |  |
| Otu0014 | 1.2 |  |  |  | 1.5 |  |  | 2.0 |  |  |  |  | 2.1 |  |  |  |
| Otu0015 | 1.0 |  |  |  |  |  |  |  |  |  |  |  | 1.1 |  |  |  |
| Otu0018 |  |  |  |  |  |  |  |  |  |  |  |  | 1.3 |  |  |  |
| Otu0019 | 3.7 |  | 1.0 |  | 2.0 |  |  | 2.8 |  |  |  |  | 5.5 |  |  |  |
| Otu0020 | 1.8 |  | 2.5 |  |  |  |  | 18.4 |  |  |  | 1.4 | 1.8 |  |  |  |
| Otu0021 |  |  |  | 1.0 |  |  |  |  |  |  |  | 1.5 |  |  | 1.6 | 1.7 |
| Otu0024 | 1.3 |  |  |  | 1.0 |  |  | 1.7 |  |  |  |  | 3.3 |  |  |  |
| Otu0032 |  | 4.6 | 1.2 | 2.9 |  |  |  |  |  | 1.2 | 3.1 | 8.0 |  | 1.7 | 5.4 | 4.8 |
| Otu0036 | 1.6 | 1.2 | 4.1 | 1.0 | 1.4 |  |  | 10.6 |  |  |  |  | 2.6 |  |  |  |
| Otu0040 | 1.2 |  | 2.2 |  |  |  |  | 1.9 |  |  |  |  | 1.3 |  |  |  |
| Otu0043 | 1.5 |  |  |  | 1.1 |  |  | 1.6 |  |  |  |  | 1.7 |  |  |  |
| Otu0044 |  |  | 1.4 |  |  |  |  | 2.4 |  |  |  |  |  |  |  |  |
| Otu0046 |  |  |  |  |  |  |  |  |  |  |  | 1.0 |  |  |  |  |
| Otu0061 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2.1 |


| Otu0074 <br> Otu0083 |  |  |  |  |  |  |  | $\begin{aligned} & 1.1 \\ & 1.4 \end{aligned}$ | 3.2 | 1.1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 7.4 | 1.2 | 6.2 |  |  |  |  |  |  |  |
| Otu0084 |  |  |  |  |  |  |  |  |  |  |  |
| Otu0097 |  | 1.1 |  | 2.0 |  |  |  |  |  |  |  |
| Otu0105 | 1.7 | 1.3 |  |  |  |  | 1.5 |  |  |  | 1.4 |
| Otu0119 | 1.6 |  |  | 2.5 |  |  |  | 3.1 |  |  |  |
| Otu0123 |  |  |  |  |  |  |  |  |  |  | 1.4 |
| Otu0131 |  |  |  |  |  |  |  |  |  |  | 1.4 |
| Otu0137 |  | 2.6 | 1.3 |  |  |  |  |  |  | 1.6 |  |
| Otu0140 |  |  |  | 1.6 |  |  | 1.4 |  |  |  |  |
| Otu0142 |  | 1.0 |  | 3.8 |  |  | 3.3 |  |  |  |  |
| Otu0147 | 3.1 | 2.1 | 7.5 | 3.2 | 7.1 | 16.0 | 5.6 |  | 2.0 | 6.1 | 5.9 |
| Otu0161 |  |  |  |  |  |  |  |  |  |  | 2.1 |
| Otu0163 |  |  |  |  |  |  |  |  |  |  | 1.0 |
| Otu0189 |  |  |  |  |  |  | 1.0 |  |  |  |  |
| Otu0244 |  |  |  | 1.3 |  |  |  |  |  |  |  |
| Otu0329 |  | 7.5 |  |  |  |  |  |  |  |  |  |
| Otu0619 |  |  | 1.6 |  | 1.0 | 3.6 | 7.9 |  |  |  | 7.6 |
| Otu0728 |  |  |  |  |  |  | 1.3 |  |  |  |  |
| Otu0746 |  | 1.5 |  |  |  |  |  |  |  |  |  |
| Otu1431 |  |  |  |  |  |  |  |  |  |  | 1.4 |



Figure S1. Rarefaction curves of Operational Taxonomic Units (OTUs) numbers against the number of high-quality reads, at $\geq 97$ similarity, in the studied mesocosms.


Figure S2. Maximum likelihood phylogenetic tree of the Bacteria most dominant operational taxonomic units (OTU) and the ones found in all four mesocosms all sampling points (in bold). Bootstrap values were estimated from 1,000 replicates.


Figure S3. Temporal dynamics of phosphate, nitrate to total dissolved inorganic nitrogen (DIN) ration and phytoplankton biomass in the studied mesocosms (data from Sommer et al. 2012).





| - Unclass. Proteobacteria | Unclass. Bacteroidetes | Unclass. Actinomycetales |
| :--- | :--- | :--- |
| Alteromonadaceae | Flavobacteriaceae | Microbacteriaceae |
| Caulobacteraceae |  |  |
| Rhodobacteraceae | Unafilliated | Verrucomicrobiales |

Figure S4. Taxonomic composition of the most abundant ( $>1 \%$ ) bacterial OTUs in the studied mesocosms. J: January, F: February, C: control (baseline light intensity), H: high light intensity. Numbers indicate day number of the incubation period.


Figure S5. Association network diagram of Spearman's correlations (edges) between the 10 operational taxonomic units (numbers in nodes) shared among the four mesocosms (yellow nodes) that showed statistically significant $(\mathrm{P}<0.02)$ correlations of their relative abundances. J: January, F: February, C: control (baseline light intensity), H: high light intensity. Numbers indicate day number of the incubation period.


Figure S6. Basic analysis parameters of the networks presented in Fig. S5. J: January, F: February, C: control (baseline light intensity), H: high light intensity.
all sampling points (in bold). Bootstrap values were estimated from 1,000 replicates.

