

1 **Supplementary**

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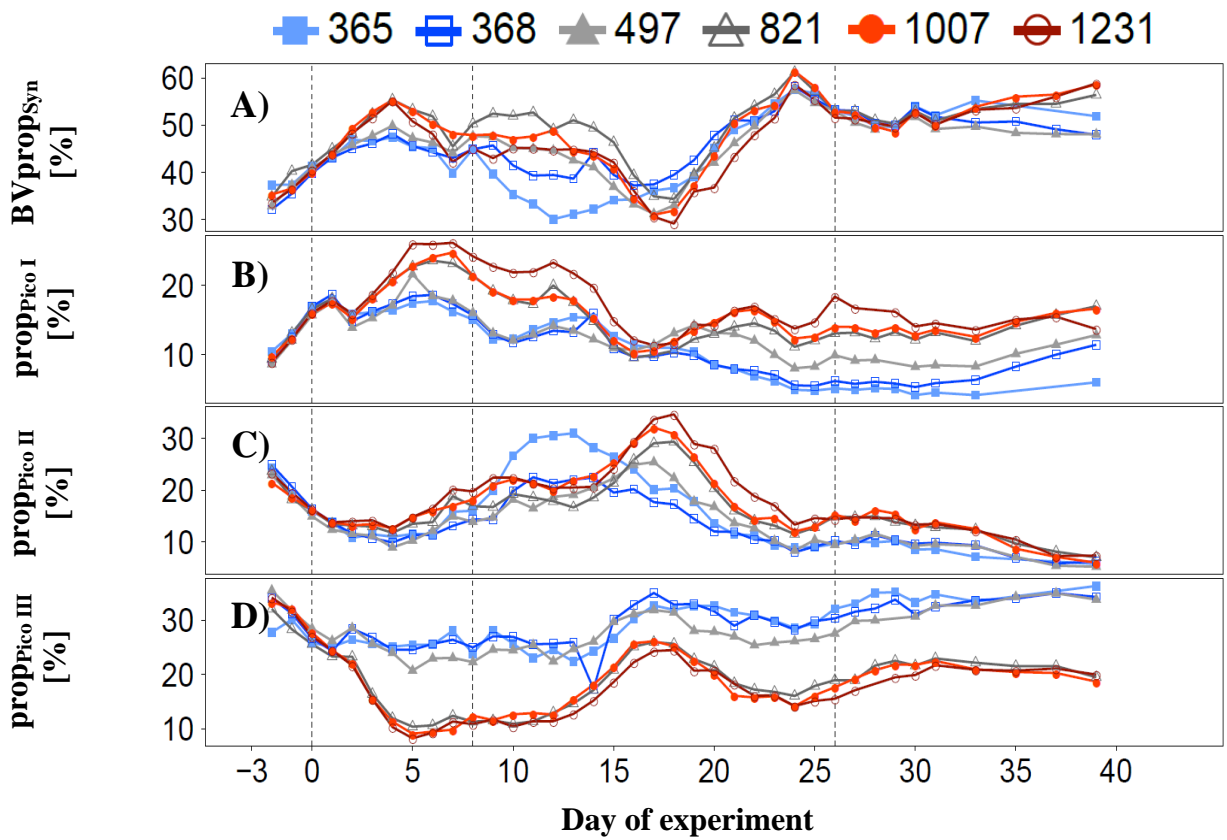
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Figure S1: Relative biovolume contribution of A) biovolume of *Synechococcus* spp. [$\times 10^5 \mu\text{m}^3 \text{ml}^{-1}$] and B-D) biovolume of picoeukaryote groups I-III (Pico I-III) [$\times 10^5 \mu\text{m}^3 \text{ml}^{-1}$] to total biovolume of picophotoautotrophs (sum of *Synechococcus* spp and Pico I-III) revealed from flow cytometry during the course of the experiment. Colours and symbols indicate average $f\text{CO}_2$ [μatm] between t1-t43.

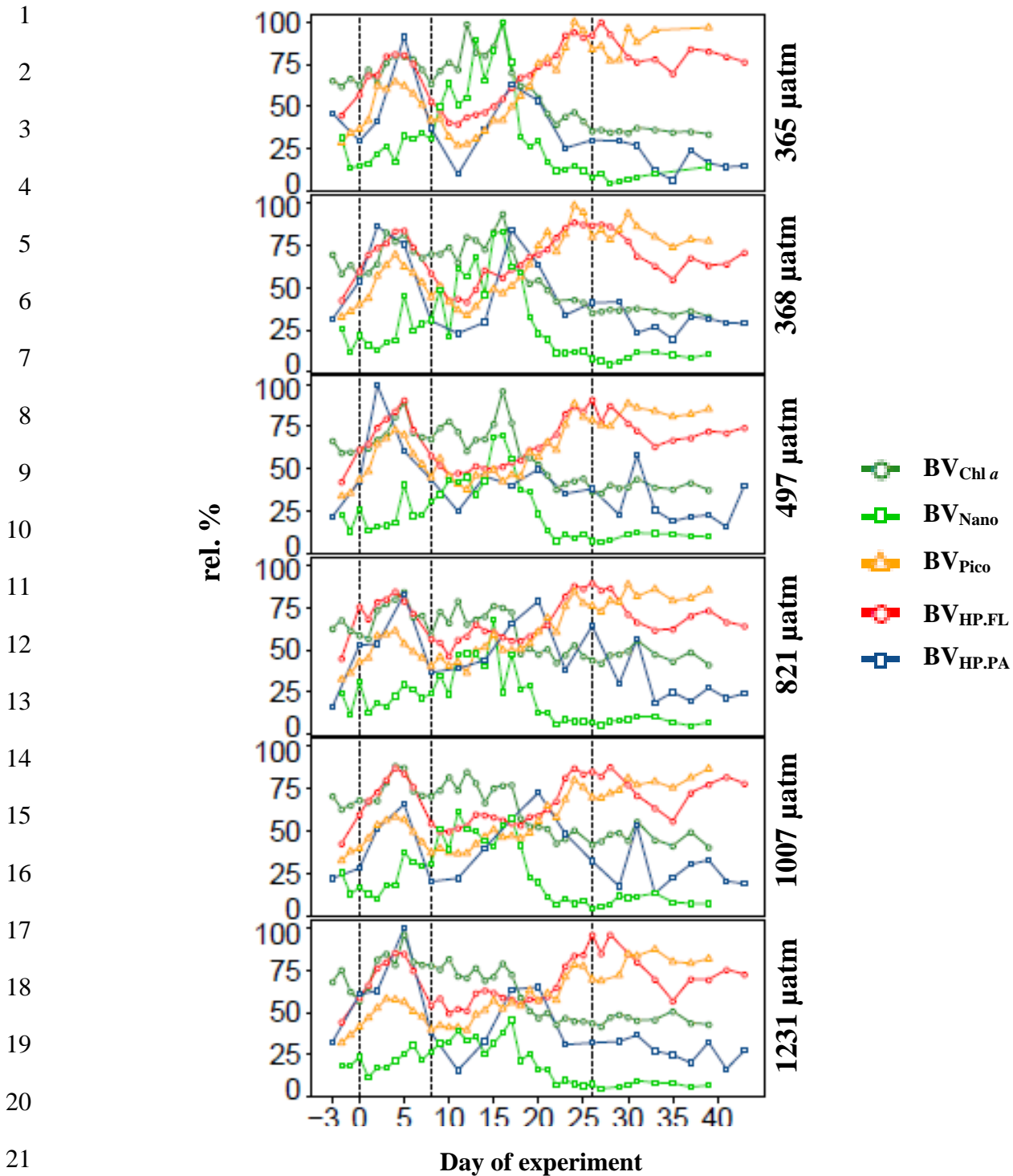
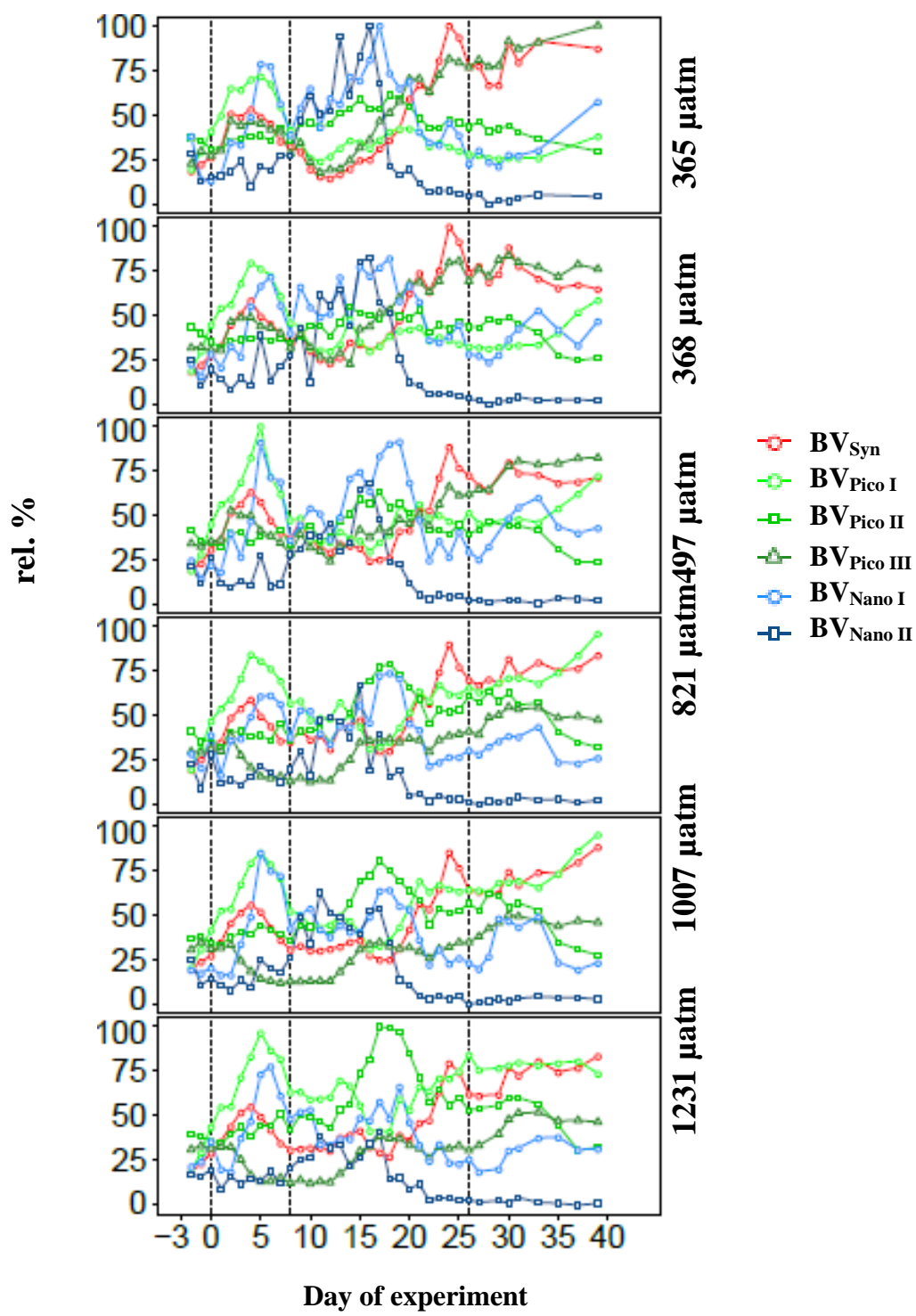


Figure S2: Concentration of Chl *a*, biovolumes of picophotoautotrophs (BV_{Pico} ; sum of *Synechococcus* spp. and Pico I-III) and nanophotoautotrophs (BV_{Nano} ; sum of Nano I and II) as well as biovolumes of free-living ($BV_{\text{HP.FL}}$) and particle-associated ($BV_{\text{HP.PA}}$) heterotrophic prokaryotes during the course of the experiments in the respective mesocosms. Biovolumes are standardized to the highest observed value for each parameter and expressed as relative percentage.

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Figure S3: Biovolumes of *Synechococcus* spp., picoeucaryote groups I-III and nanoplankton groups I-II during the course of the experiment in the respective mesocosms. Biovolumes are standardized to the highest observed value for each organism group and expressed as relative percentage.