

Supplement of Biogeosciences, 11, 4783–4800, 2014
<http://www.biogeosciences.net/11/4783/2014/>
doi:10.5194/bg-11-4783-2014-supplement
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Supplement of

Contrasted Saharan dust events in LNLC environments: impact on nutrient dynamics and primary production

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Supplementary material

Figure S1: NO_3^- concentration (μM) during the DUNE-2-R experiment in the Dust-meso at 5 and 10 m depth. The dotted lines represent the time of the dust seedings. Data in the Dust-meso represent the average and standard deviation of the three replicate mesocosms. NO_3^- concentrations were under detection limit ($< 30 \text{ nM}$) in the Control-meso and outside over the duration of the experiment as well as in the Dust-meso before seeding (day 0) and at the end of the experiment (day 13).

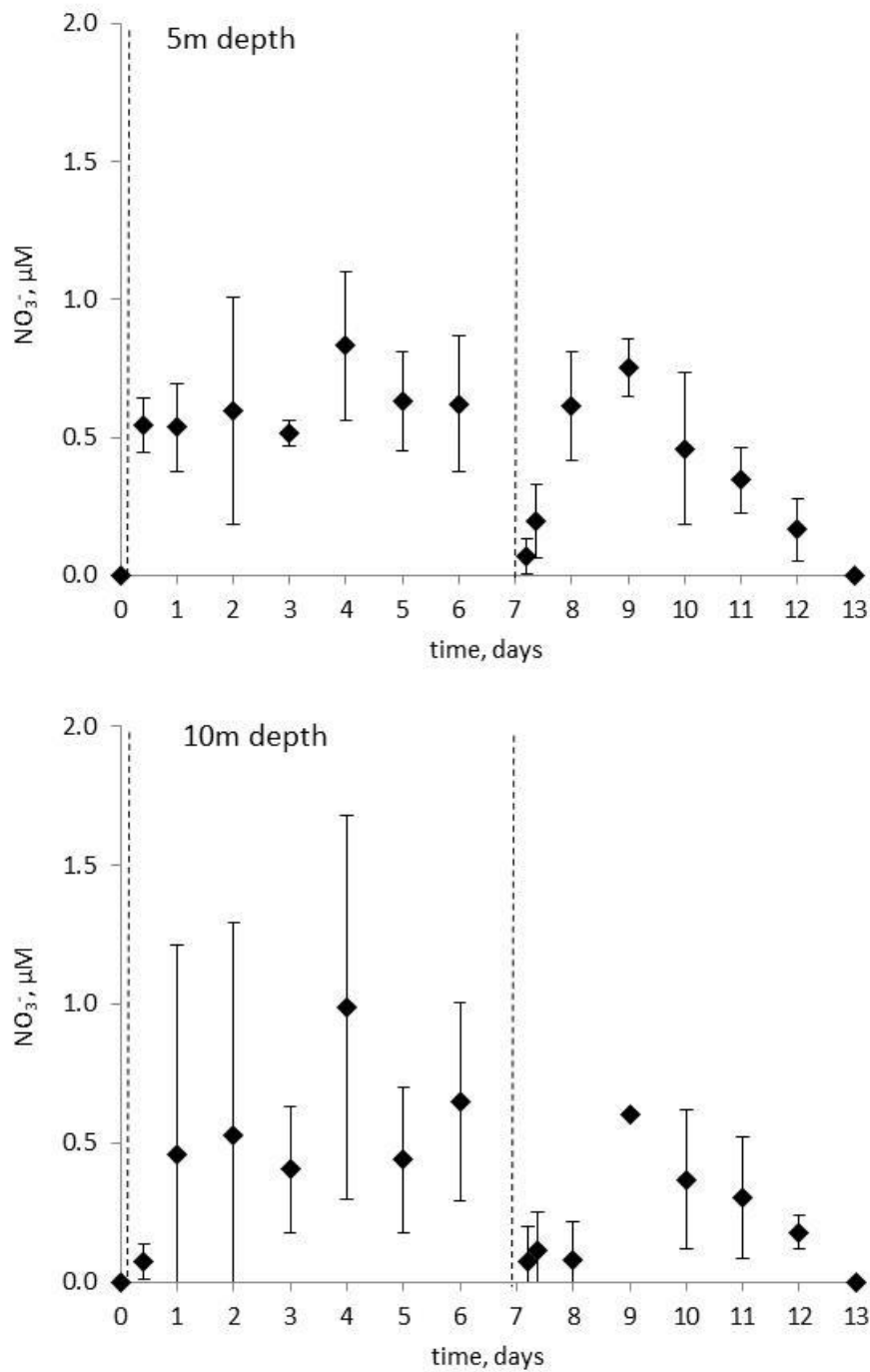


Figure S2: C:N ratio (mol:mol) in the particulate matter in the Control-meso (black dot), Dust-meso (orange dot) and out (grey dot) during DUNE-1-P (A), DUNE-1-Q (B) and DUNE-2-R (C). Data represent the means at 0.1 and 5 m depth for the DUNE-1-P and -Q experiments and at 5 m depth for the DUNE-2-R experiment. The dotted lines represent the time of the dust seeding.

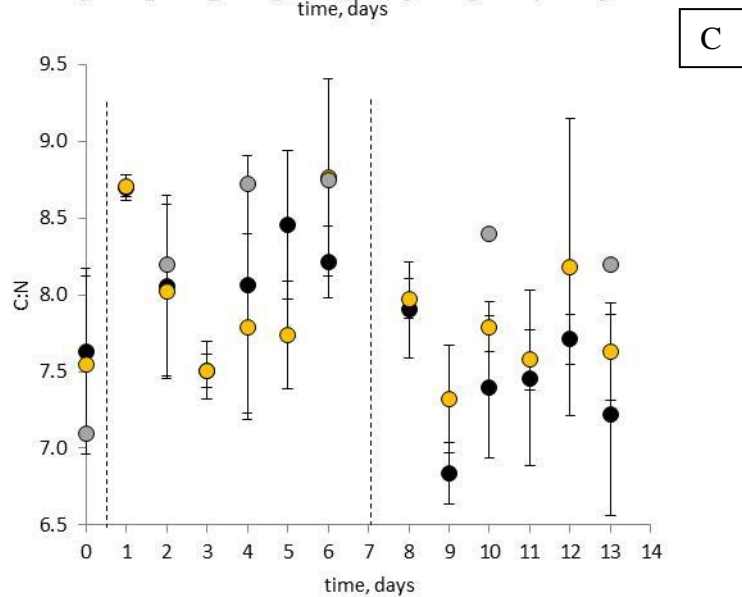
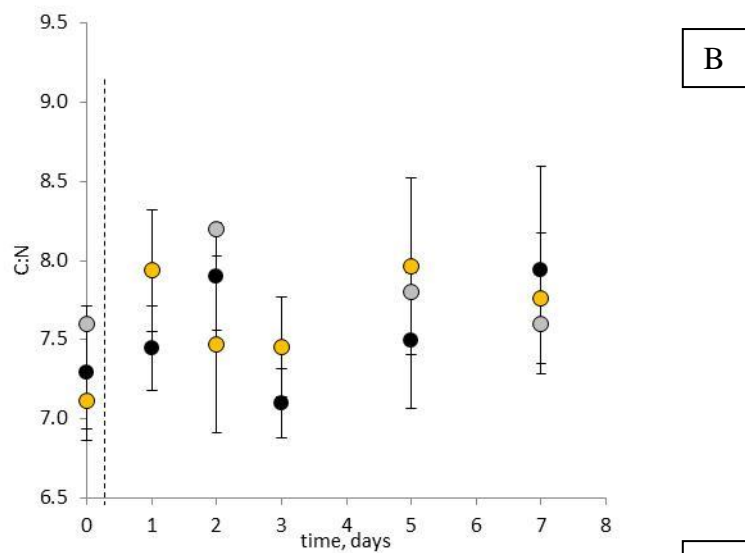
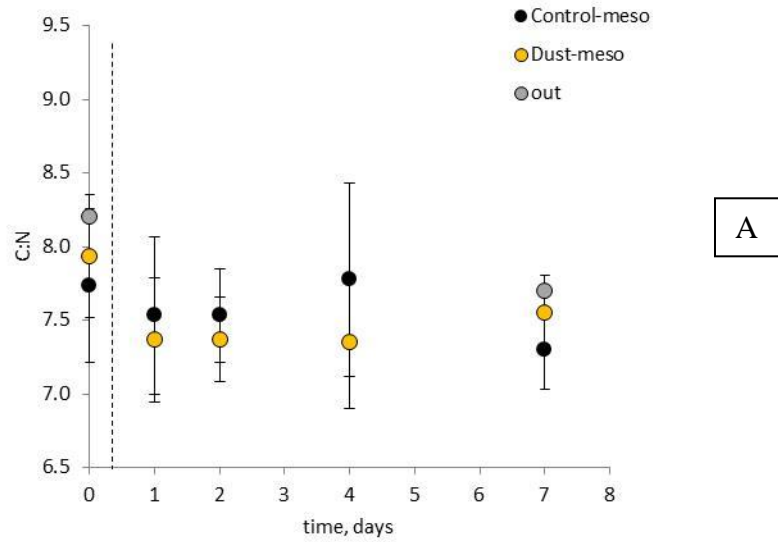


Figure S3: Chlorophyll *a* (Chl *a*) concentration in $\mu\text{g L}^{-1}$ during the DUNE-1-P experiment in the Control-meso (black dot), Dust-meso (orange dot) and out (grey dot) at surface, 5 m and 10 m depth. The dotted line represents the time of the dust seeding. Data in the Control- and Dust-meso represent the average and standard deviation of the three replicate mesocosms. Means in the Dust-meso that were significantly different from the Control-meso ($p < 0.05$) are labeled with the * symbol.

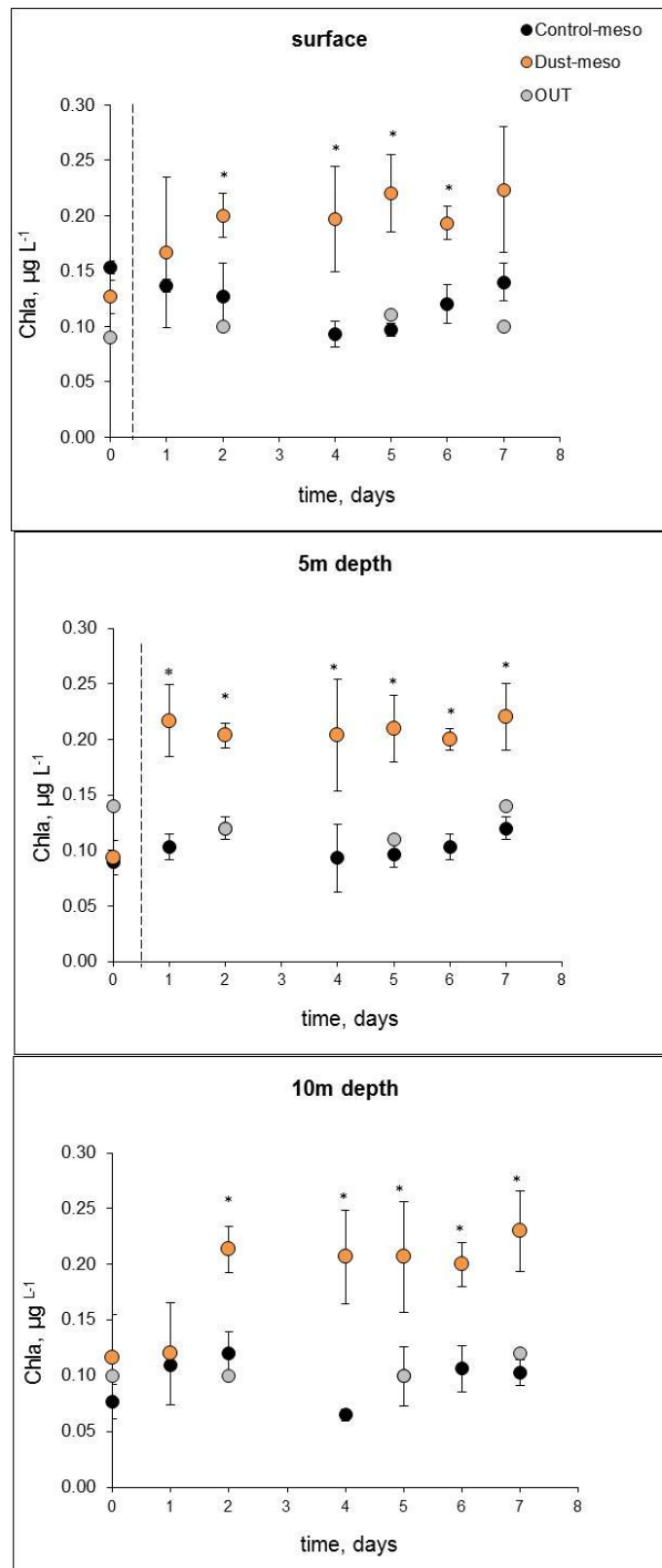


Figure S4 – Primary production (PP) in $\text{mg C m}^{-3} \text{d}^{-1}$ during the DUNE-1-P experiment in the Control-meso (black dot), Dust-meso (orange dot) and out (grey dot) at surface and 5 m depth. The dotted line represents the time of the dust seeding. Data in the Control- and Dust-meso represent the average and standard deviation of the three replicate mesocosms. Means in Dust-meso that were significantly different from Control-meso ($p < 0.05$) are labeled with the * symbol.

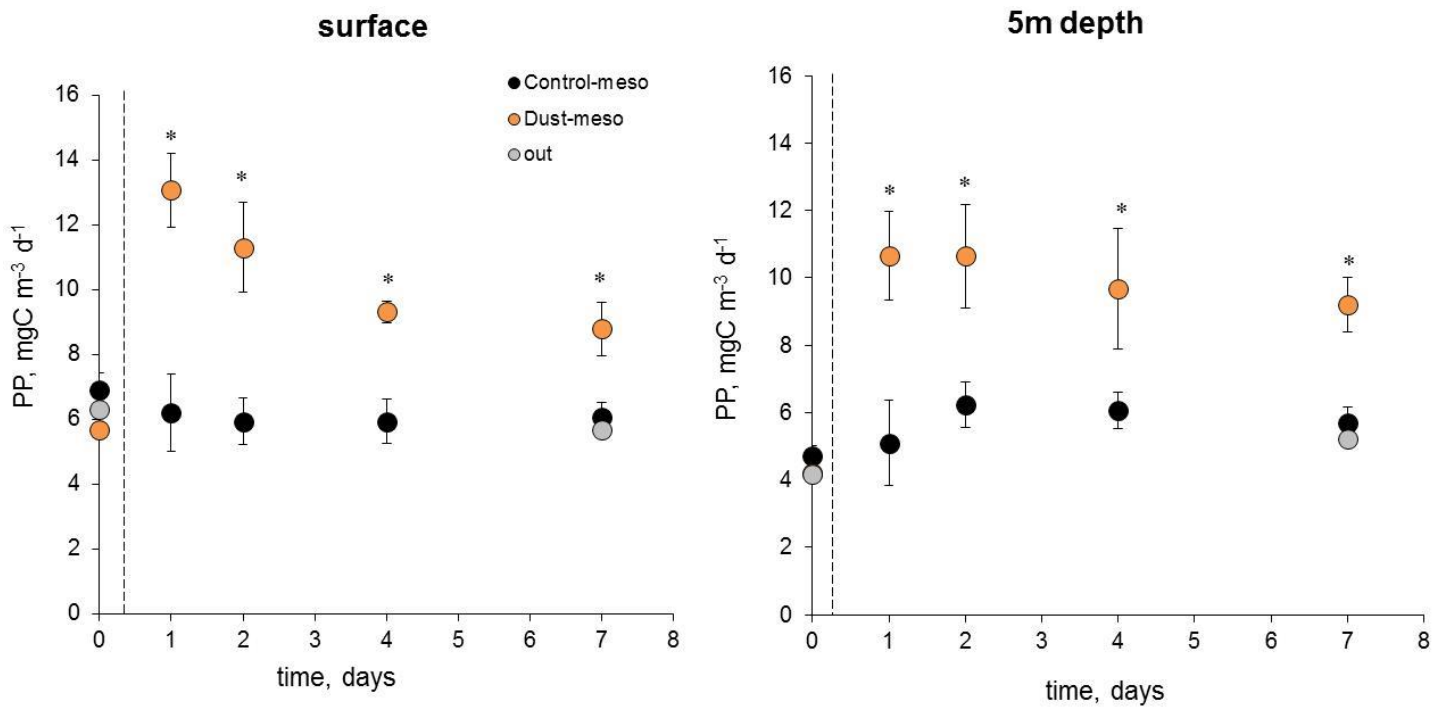


Figure S5: Chlorophyll *a* (Chl *a*) concentration in $\mu\text{g L}^{-1}$ during the DUNE-1-Q experiment in the Control-meso (black dot), Dust-meso (orange dot) and out (grey dot) at surface, 5 and 10 m depth. The dotted line represents the time of the dust seeding. Data in the Control- and Dust-meso represent the average and standard deviation of the three replicate mesocosms.

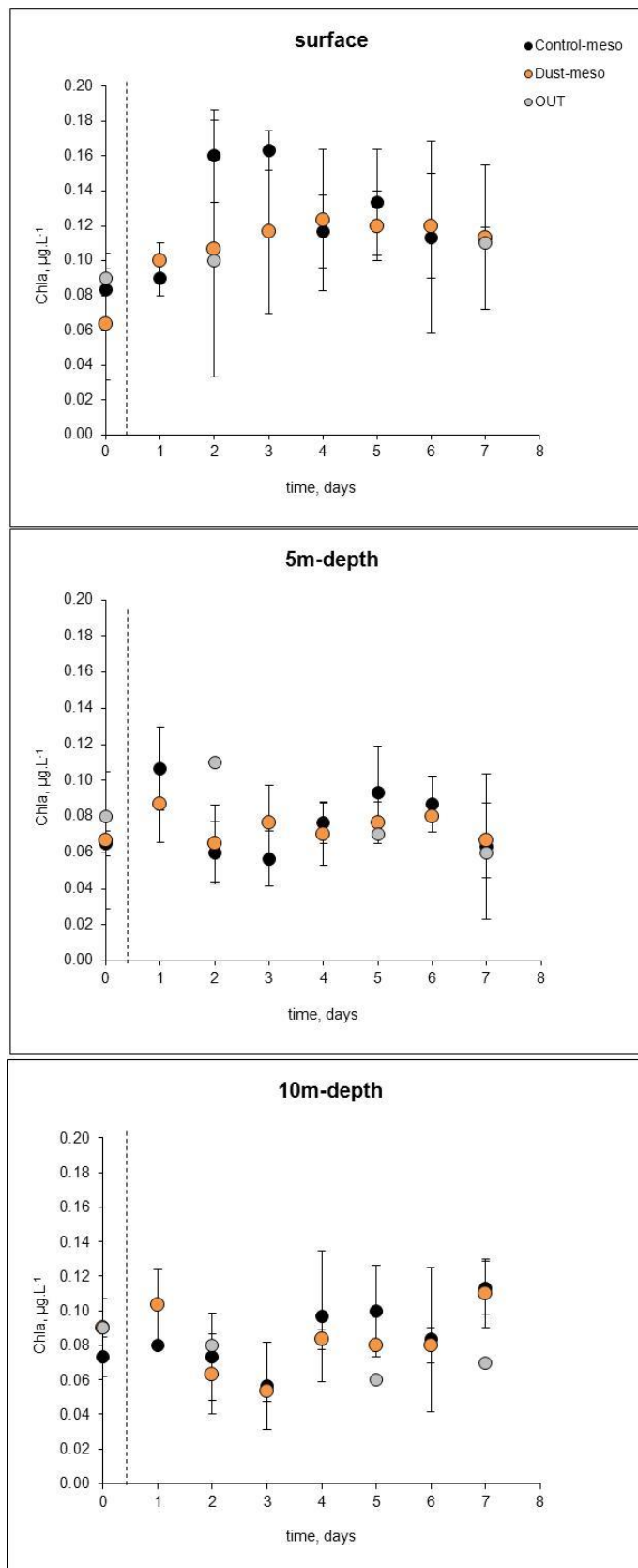


Figure S6 – Primary production (PP) in $\text{mg C m}^{-3} \text{d}^{-1}$ during the DUNE-1-Q experiment in the Control-meso (black dot), Dust-meso (orange dot) and out (grey dot) at surface and 5 m depth. The dotted line represents the time of the dust seeding. Data in the Control- and Dust-meso represent the average and standard deviation of the three replicate mesocosms. Means in the Dust-meso that were significantly different from the Control-meso ($p < 0.05$) are labeled with the * symbol.

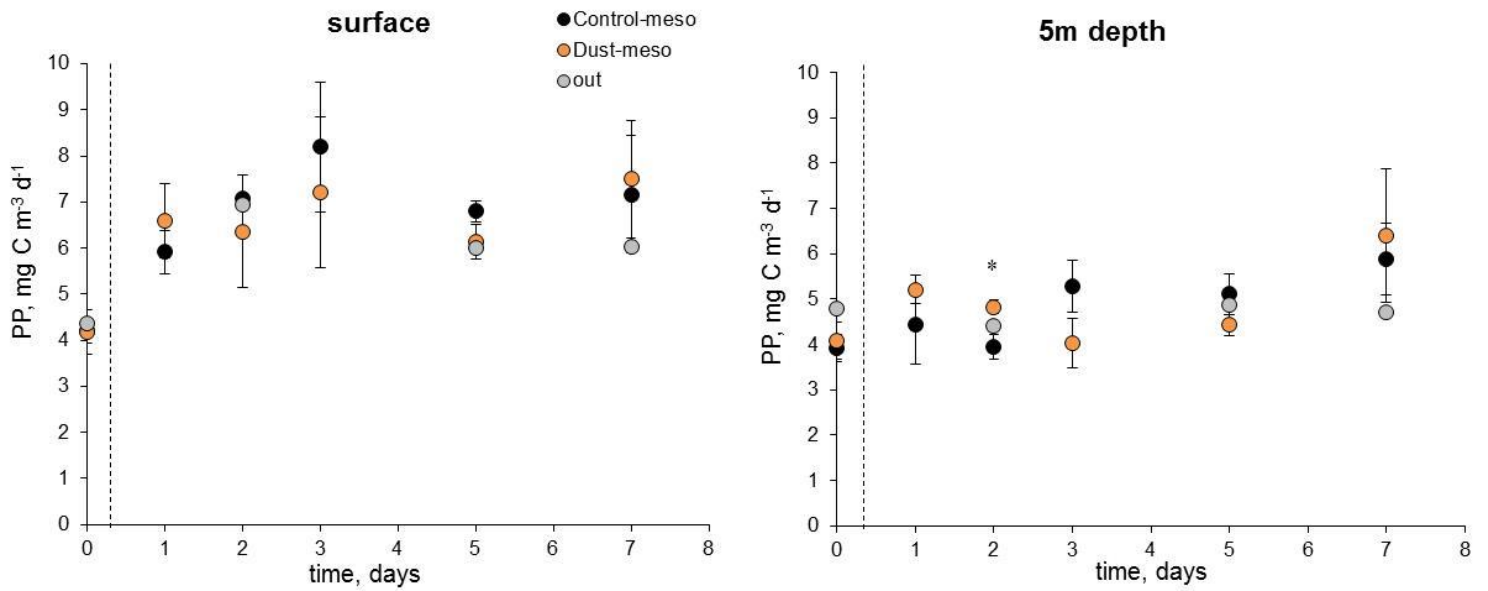


Figure S7: Chlorophyll *a* (Chl *a*) concentration in $\mu\text{g L}^{-1}$ during the DUNE-2-R experiment in the Control-meso (black dot), Dust-meso (orange dot) and out (grey dot) at surface, 5 and 10 m depth. The dotted lines represent the time of the dust seedings. Data in the Control- and Dust-meso represent the average and standard deviation of the three replicate mesocosms. Means in the Dust-meso that were significantly different from the Control-meso ($p < 0.05$) are labeled with the * symbol.

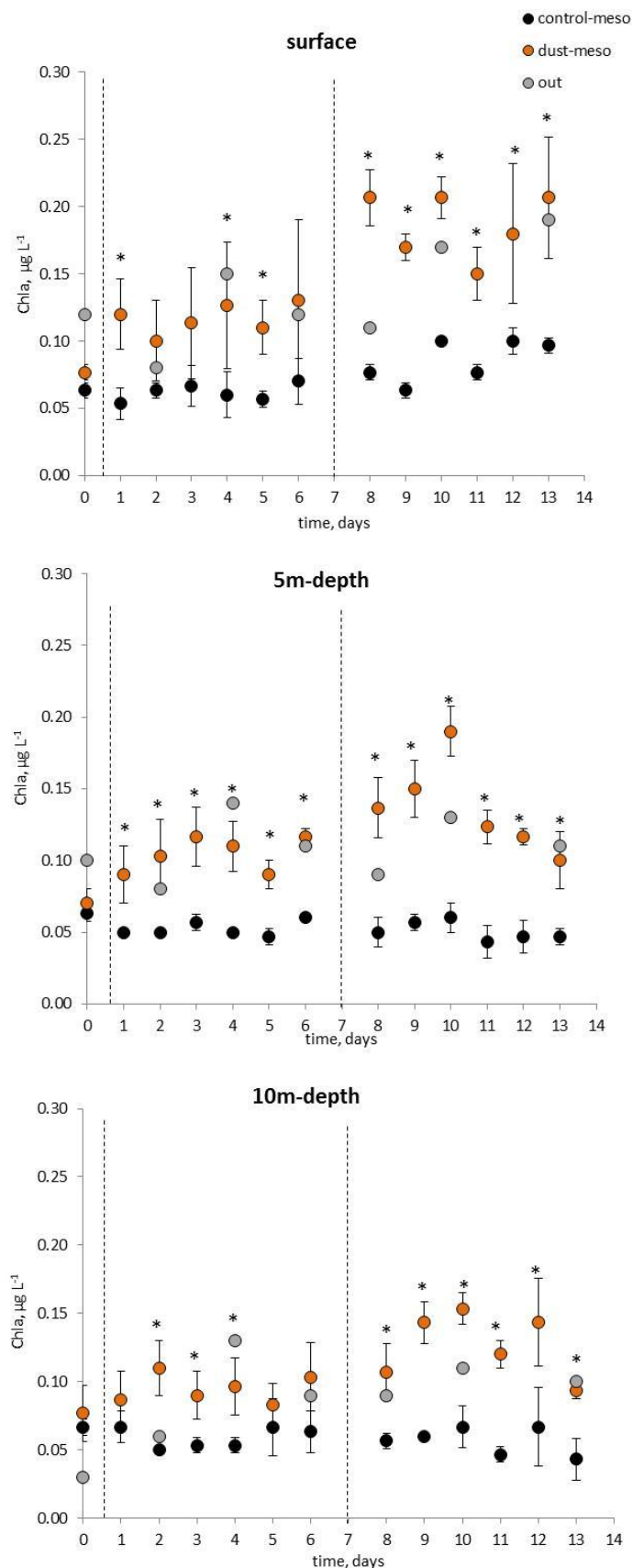


Figure S8 – Primary production (PP) in $\text{mg C m}^{-3} \text{d}^{-1}$ during the DUNE-2-R experiment in the Control-meso (black dot), Dust-meso (orange dot) and out (grey dot) at 5 m depth. The dotted lines represent the time of the dust seedings. Data in the Control- and Dust-meso represent the average and standard deviation of the three replicate mesocosms. Means in the Dust-meso that were significantly different from the Control-meso ($p < 0.05$) are labeled with the * symbol.

