SUPPLEMENTARY MATERIALS

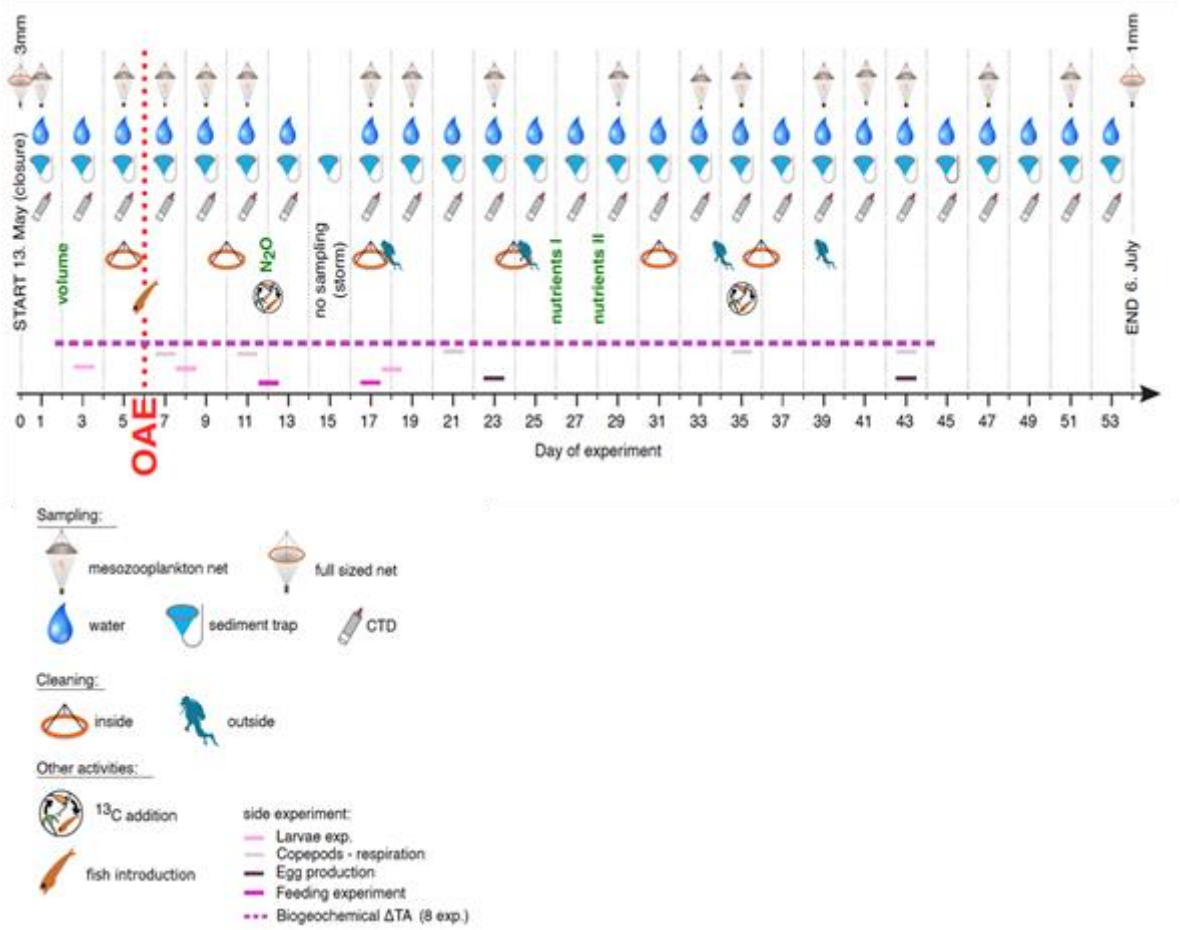

Figure S1. Activities conducted throughout the experimental period including, mesozooplankton and full-sized net casts, "water" meaning sampling for all parameters into the canisters or other parameter specific bottles, CTD casts, inside and outside cleaning of the the mesocosm bags, 13C spiking and side experiments. Figure proportioned by Dr. Silvan Goldernberg

Table S1. Calculated pCO_2 levels in µatm, using the measured Total Alkalinity (TA), pH and nutrient concentrations at *in situ* temperature and salinity, using CO2Sys v2.5, for days 53 and 7. The last column to the right portrays the difference between the latter two.

MK	Mineral	pCO_2 T53	pCO_2 T7	pCO_2 T53 - T7
M5	Ca	417.94	341.96	75.98
M1	Ca	255.43	191.54	63.90
M9	Ca	161.93	116.74	45.19
M7	Ca	122.47	88.11	34.35
M3	Ca	90.02	65.95	24.07
M6	Si	397.49	354.59	42.90
M10	Si	244.99	191.68	53.31
M2	Si	160.95	125.29	35.66
M4	Si	113.75	85.23	28.51
M8	Si	78.52	68.77	12.75

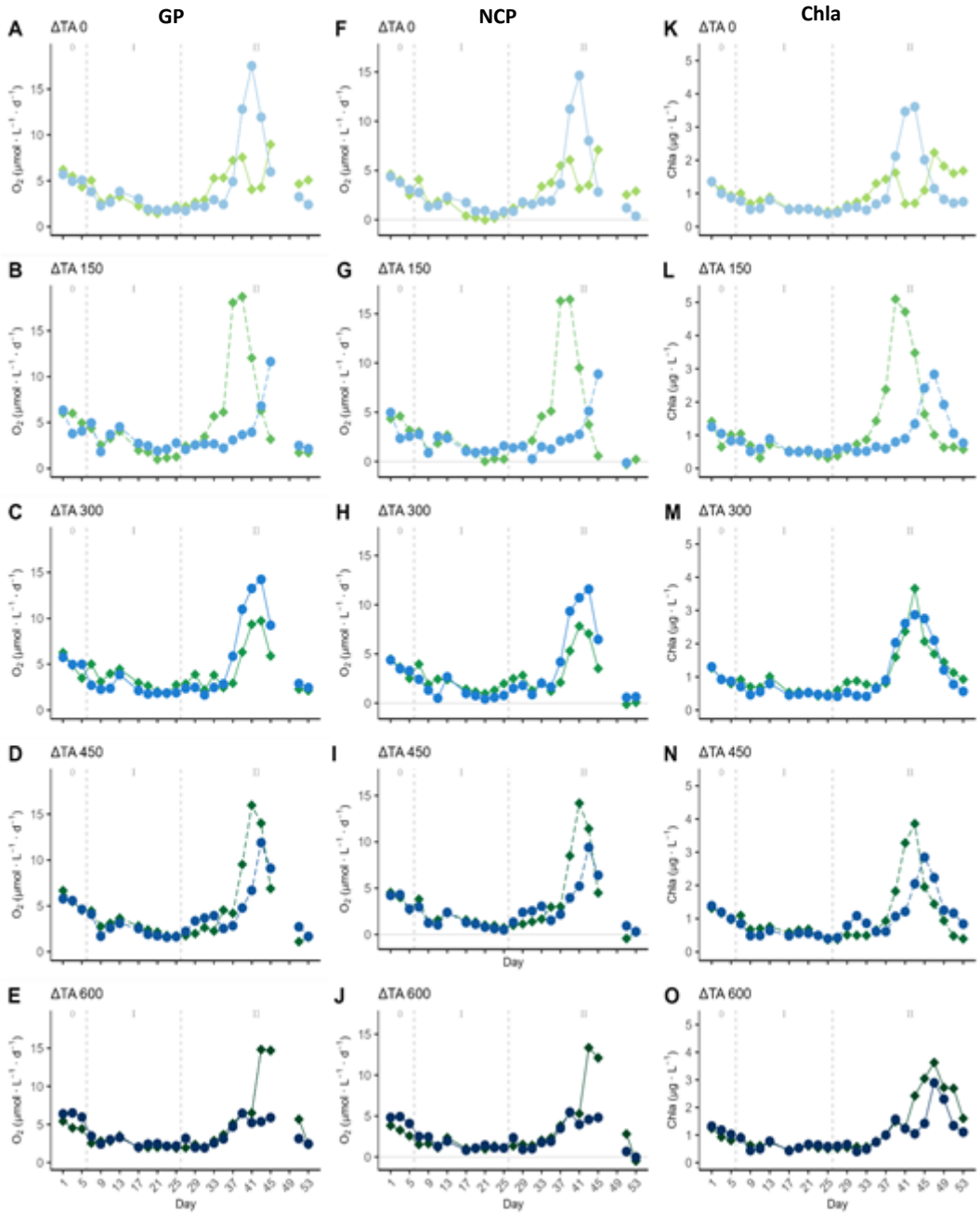

Figure S2. Temporal development of Gross Production (GP, first column: A, B, C, D, E), Net Community Production (NCP, middle column: F, G, H, I, J) and Chlorophyll a (Chla) concentrations (third column: K, L, M, N, O). Calcium and silicate-based treatments were paired based in Δ Total Alkalinity (TA) level.

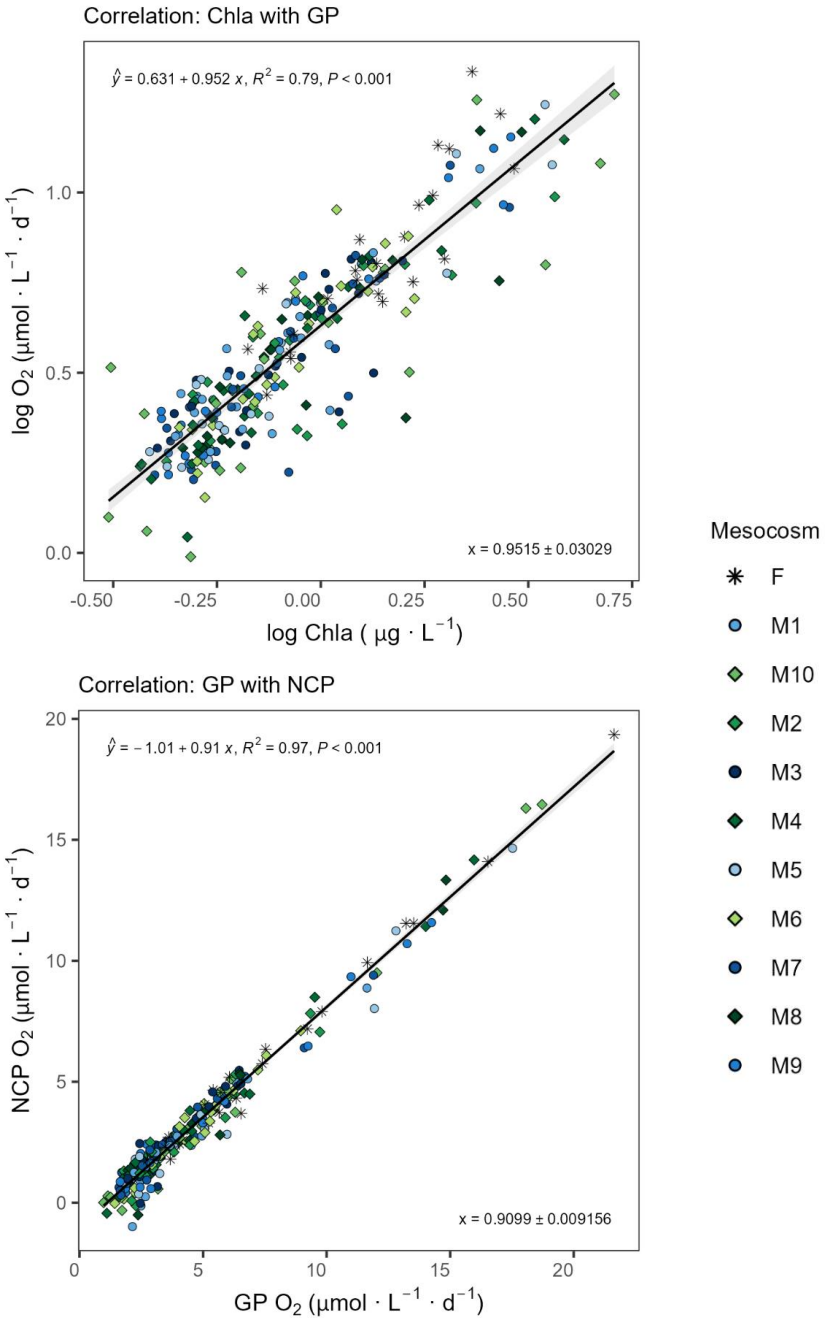

Figure S3. Statistical output figures of a spearmen correlation between top) the base-10 log transformed measured Gross Production (GP) and Chlorophyll a (Chla) concentrations, and bottom) the measured GP to net community production (NCP) throughout the experiment.