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Factors controlling plankton community production, export flux, and particulate matter stoichiometry in the coastal upwelling system off Peru

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Supplementary material

Table S1. Dissolved iron (DFe) concentrations (nM) integrated over the water column (0 – 17 m). Please note that DFe is always above growth limiting concentrations and therefore most likely did not control productivity in by the plankton community.

Mesocosm	Day 3	Day 17	Day 48
M1	17.8	10.8	6.9
M2	11.7	6.4	6.8
M3	13.9	5.9	5.4
M4	14.8	7.6	3.1
M5	13.4	10.6	5.2
M6	13.6	7.1	6.4
M7	11.9	5.7	9.5
M8	11.9	9.5	8.5
Pacific	-	-	8.5

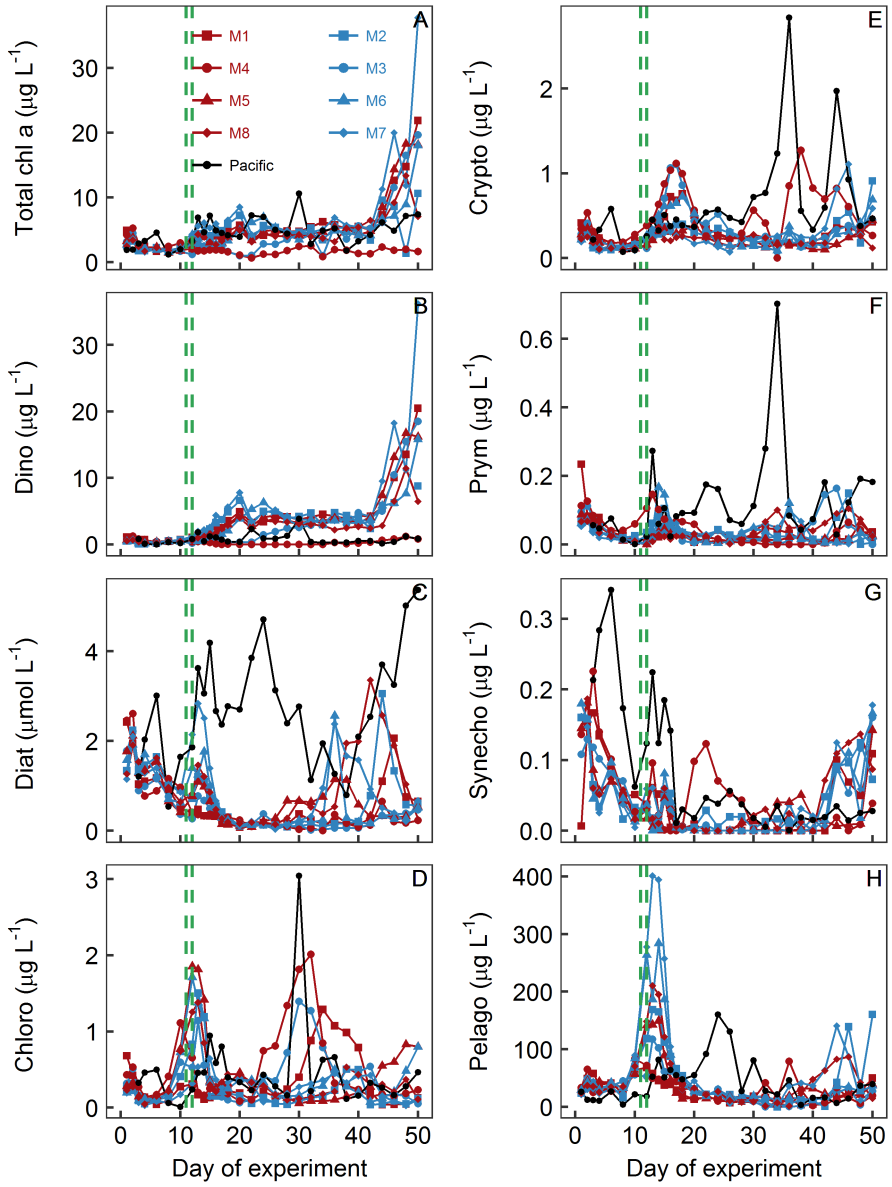

Figure S1. Phytoplankton development based on the CHEMTAX analysis. Shown here are ch-a concentrations contributed by the individual taxa where the sum of all taxa is the total chl-a concentration shown in plot A. Note the different y-axis scaling (A) Total chl-a. (B) Dinophyceae. (C) Diatoms. (D) Chlorophyceae. (E) Cryptophyceae. (F) *Synechococcus*. (D) Pelagophyceae. The green lines mark the days of OMZ water addition. Concentrations are averages over the entire water column (0 – 17 m).

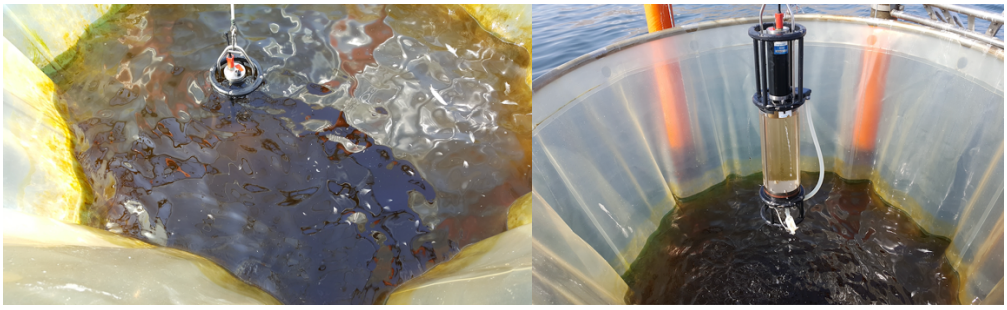

Figure S2. Pictures from the surface water during the orni-eutrophication event at the end of the study (M7, day 48). Left: Mesocosm surface. Right: Integrating water sampler filled with water from the upper 0.2 m.