The following supplement accompanies the article

Physiological stress response associated with elevated CO_2 and dissolved iron in a phytoplankton community dominated by the coccolithophore *Emiliania huxleyi*

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Supplement.

Table S1. Irradiance (% referred to sun) through the polyethylene mesocosm material (a) and mesocosm lids transmittance (% referred to lamp) measured with SMS-500 (Ocean Optics LLC, USA) between 200-800 nm. Lamp refers to a Qpanel lamp used for UVA and UVB control.

(a)

% Transmittance	Mesocosm
PAR	73.33
UVA (320-400 nm)	53.95
UVB (280-320 nm)	67.07

(b)

% Transmittance	Mesocosm lid
PAR	90.45
UVA (320-400 nm)	83.64
UVB (280-320 nm)	80.92

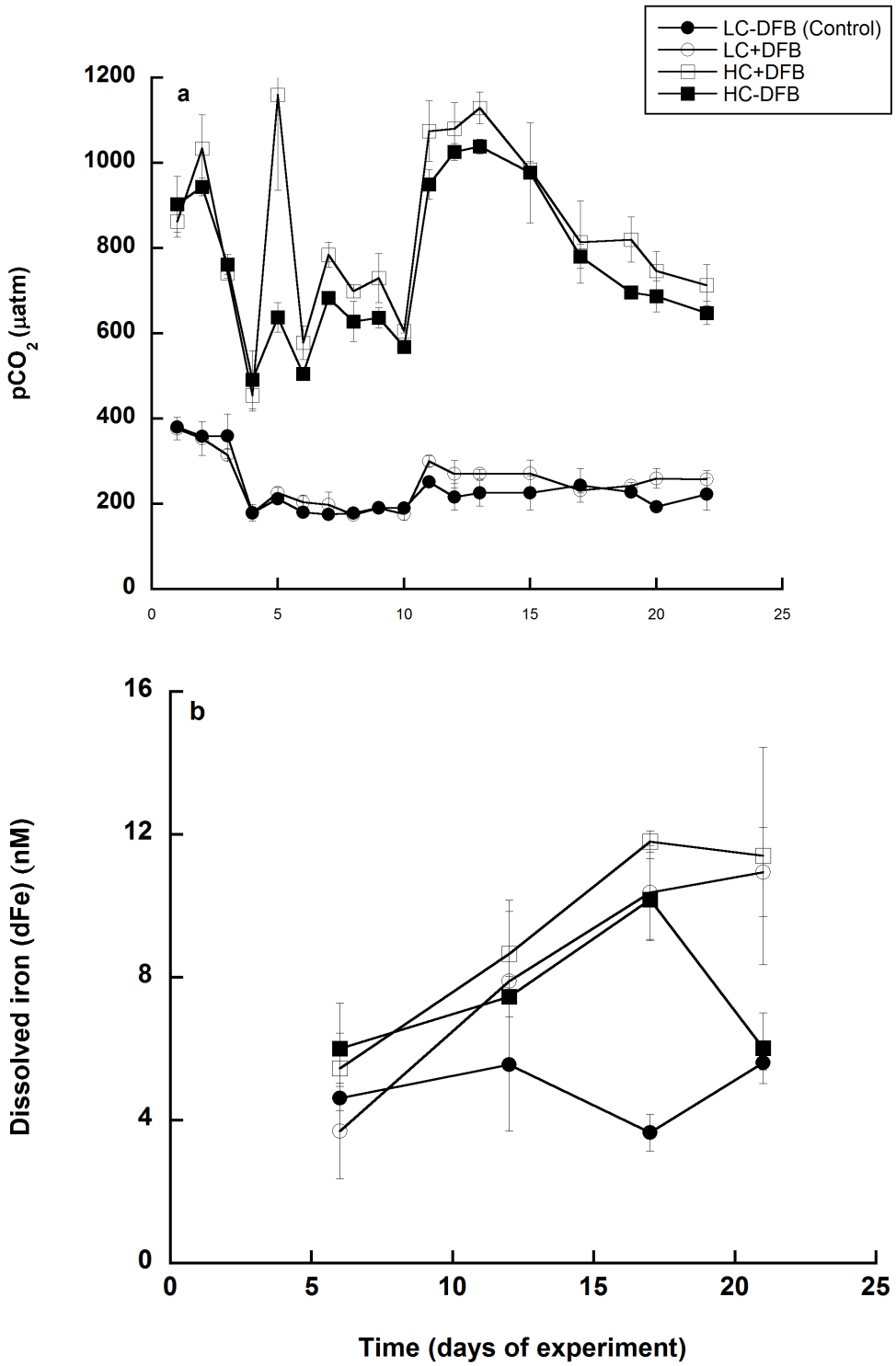
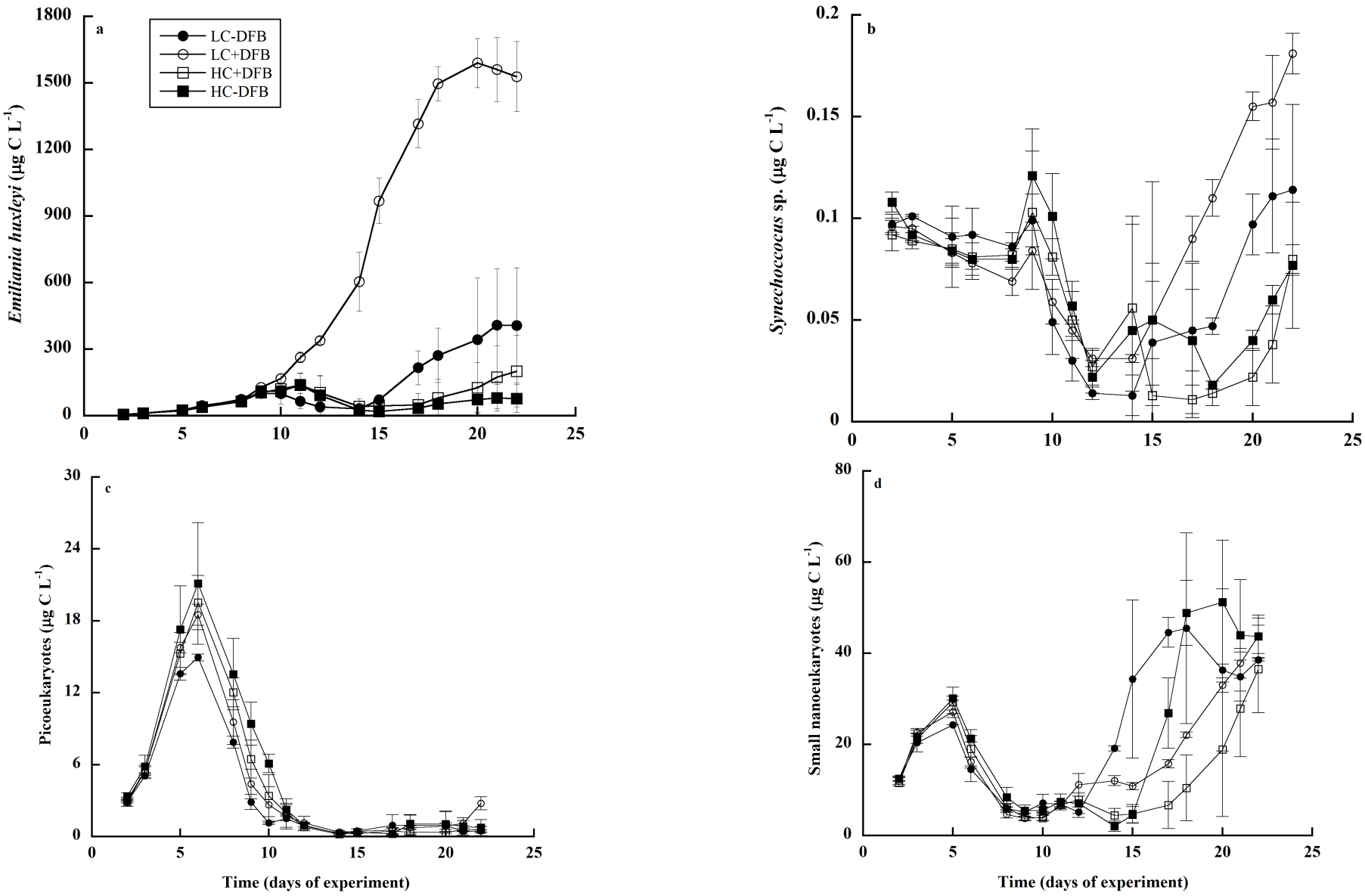
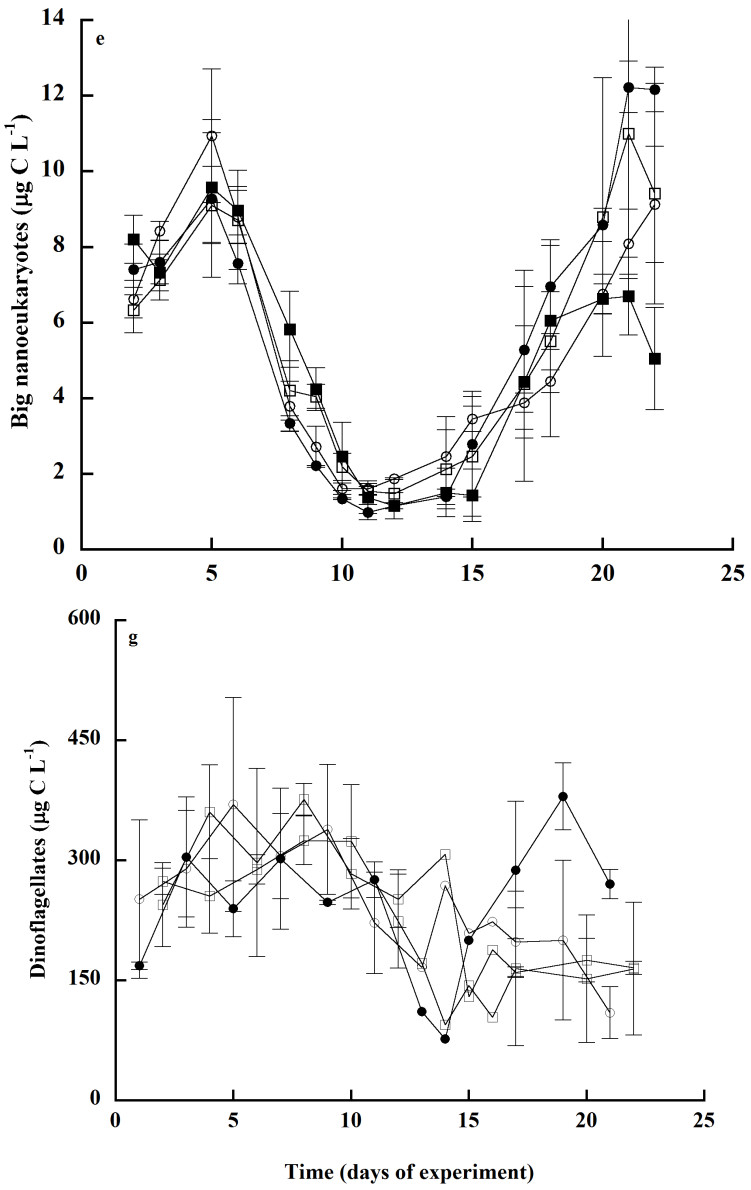


Fig. S1. From the companion paper Segovia et al. (2017). Temporal development of CO_2 partial pressures (pCO_2) (a) and dissolved iron (dFe) (b) within the mesocosms. Ambient pCO_2 and ambient dFe (black filled circle); ambient pCO_2 and increased dFe (LC+DFB, open circle); increased pCO_2 and increased dFe (HC+DFB, open square), increased pCO_2 and ambient dFe (HC-DFB, black filled square). Symbols indicate means of measurements in three independent mesocosms (n=3) except for LC-DFB where n=2. Error bars indicate standard deviations.


a
LC-DFB
LC+DFB
HC+DFB
HC-DFB
Emiliania huxleyi (µg C L-1)
b
Synechoccocus sp. (µg C L-1)
c
Picoeukaryotes (µg C L-1)
d
Small nanoeukaryotes (µg C L-1)
Time (days of experiment)
Time (days of experiment)



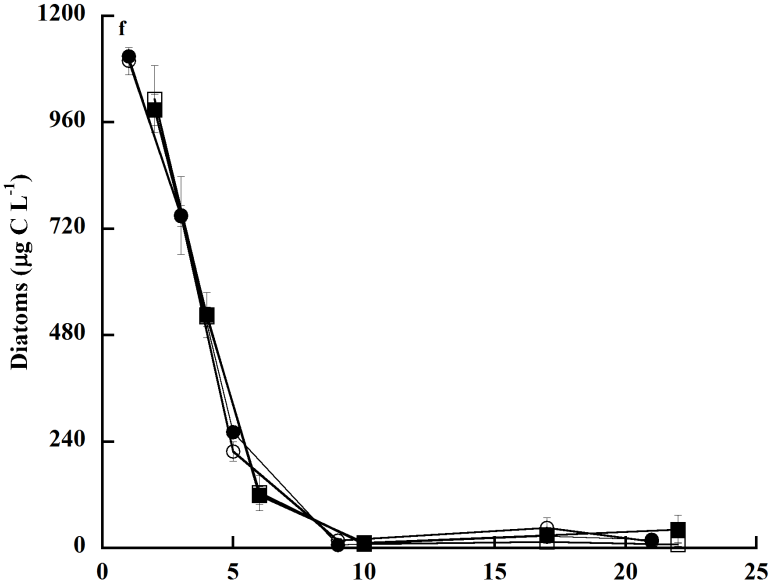


Fig. S2. From the companion paper Segovia et al. (2017). Temporal development of phytoplankton, biomass (µgC L-1) in the mesocosms exposed to different CO2 and dFe treatments. (a) *Emiliania huxleyi* (5-10 µm); (b) *Synechococcus* sp., (0.6-2 µm); (c) picoeukaryotes (0.1-2 µm); (d) small nanoeukaryotes (Prasinophytes, small Haptophytes, 2-7 µm); (e) big nanoeukaryotes (small single celled diatoms and flagellated forms, 6-20 µm); (f) Diatoms (chain forming *Skeletonema sp*, 20->500µm); (g) Dinoflagellates (20-200 µm). Symbols indicate means of measurements in three independent mesocosms (n=3) except for LC-DFB where n=2. Error bars indicate standard deviations. Panels (a) to (g).

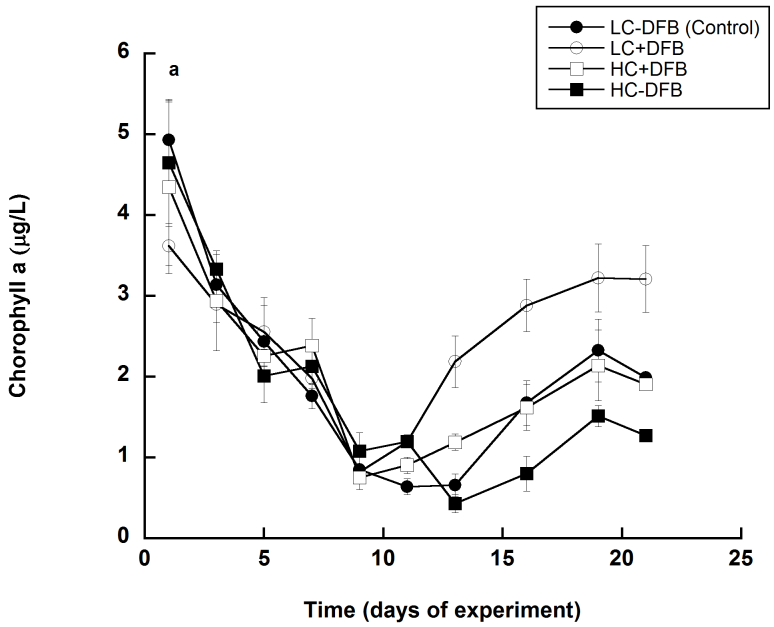


Fig. S3. From the companion paper Segovia et al. (2017). Temporal development of total Chl *a* concentration within the mesocosms in the different treatments. Symbols indicate means of measurements in three independent mesocosms (n=3) except for LC-DFB where n=2. Error bars correspond to standard deviations.

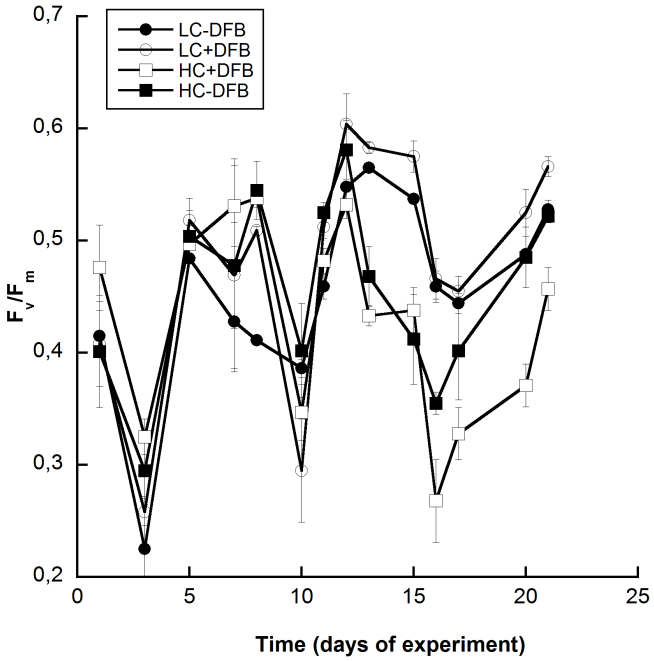


Fig. S4. From the companion paper Segovia et al. (2017). Temporal changes in the photosynthetic parameter F_v/F_m. Ambient pCO_2 and ambient dFe (black filled circle); ambient pCO_2 and increased dFe (LC+DFB, open circle); increased pCO_2 and increased dFe (HC+DFB, open square), increased pCO_2 and ambient dFe (HC-DFB, black filled square). Symbols indicate means of measurements in three independent mesocosms (n=3) except for LC-DFB where n=2. Error bars indicate standard deviations.

LITERATURE CITED

Segovia M, Lorenzo MR, Maldonado MT, Larsen A and others (2017) Iron availability modulates the effects of future CO_2 levels within the marine planktonic food web. Mar Ecol Prog Ser 565:17–33