

Supplemental figure captions

Supplemental Figure 1. (A) Custom-made 4 L polypropylene (PP) bottle and (B) the situation of seawater distribution on-board. The 4 L PP bottle was placed at the center of panel B, which was grabbed by the author to avoid rollover.

Supplemental Figure 2. Temporal changes in (A, B) pH in total scale, (C, D) $p\text{CO}_2$, and (E, F) nitrate plus nitrite concentrations.

Supplemental Figure 3. Temporal changes in the chlorophyll-*a* concentrations of (A, B) total, (C, D) large ($>10\ \mu\text{m}$) size fraction, and (E, F) small ($<10\ \mu\text{m}$) size fraction.

Supplemental Figure 4. Relationships between specific growth rate of pigments measured with HPLC and of size fractionated chlorophyll-*a*, diatom, NanoE, PicoE, and *Synechococcus* in MR15-exp.

Supplemental Figure 5. The same Figure style as for Supplemental Figure 3 but for MR16-exp.