



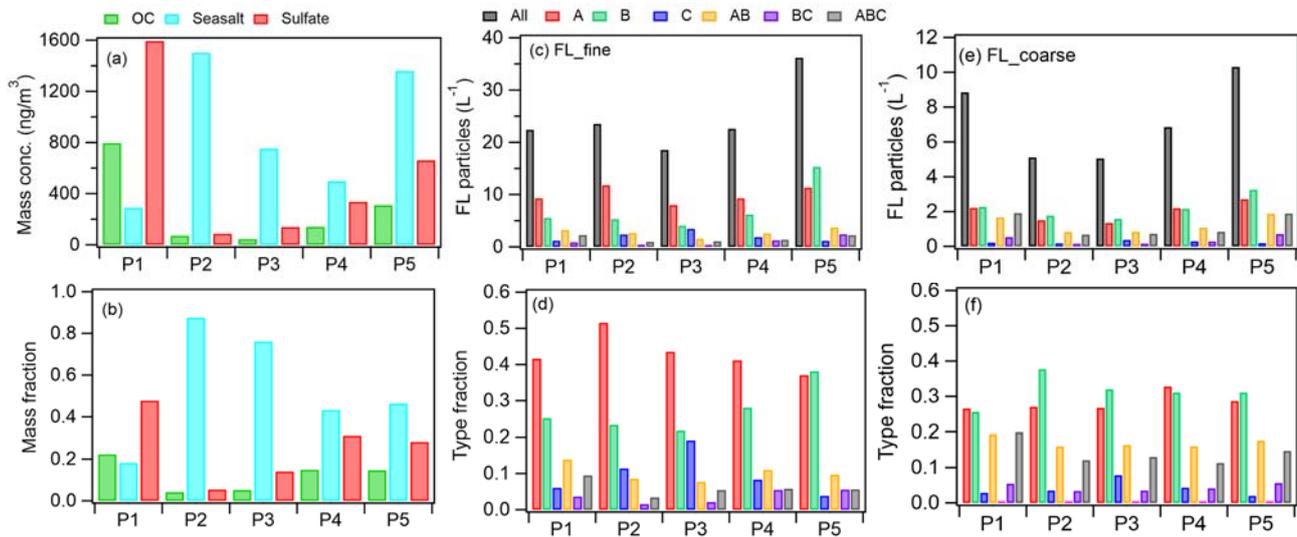
Supplement of

Roles of marine biota in the formation of atmospheric bioaerosols, cloud condensation nuclei, and ice-nucleating particles over the North Pacific Ocean, Bering Sea, and Arctic Ocean

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5 **Figure S1.** (a) Mass concentration and (b) mass fraction of chemical components in PM_{2.5} aerosol particles in each period. (c) Number concentrations and (d) fractions of types of fluorescent fine particles ($1 < D_p < 2.5 \mu\text{m}$), and (e) and (f) those of fluorescent coarse particles ($D_p > 2.5 \mu\text{m}$).

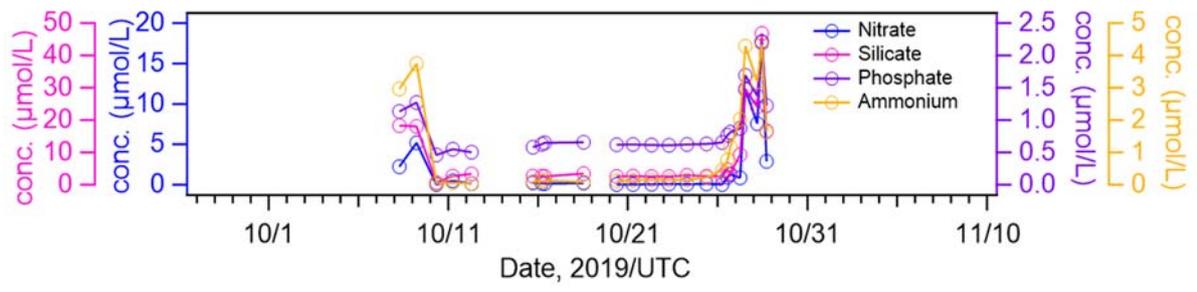


Figure S2. Time series of nutrient concentrations in seawater.

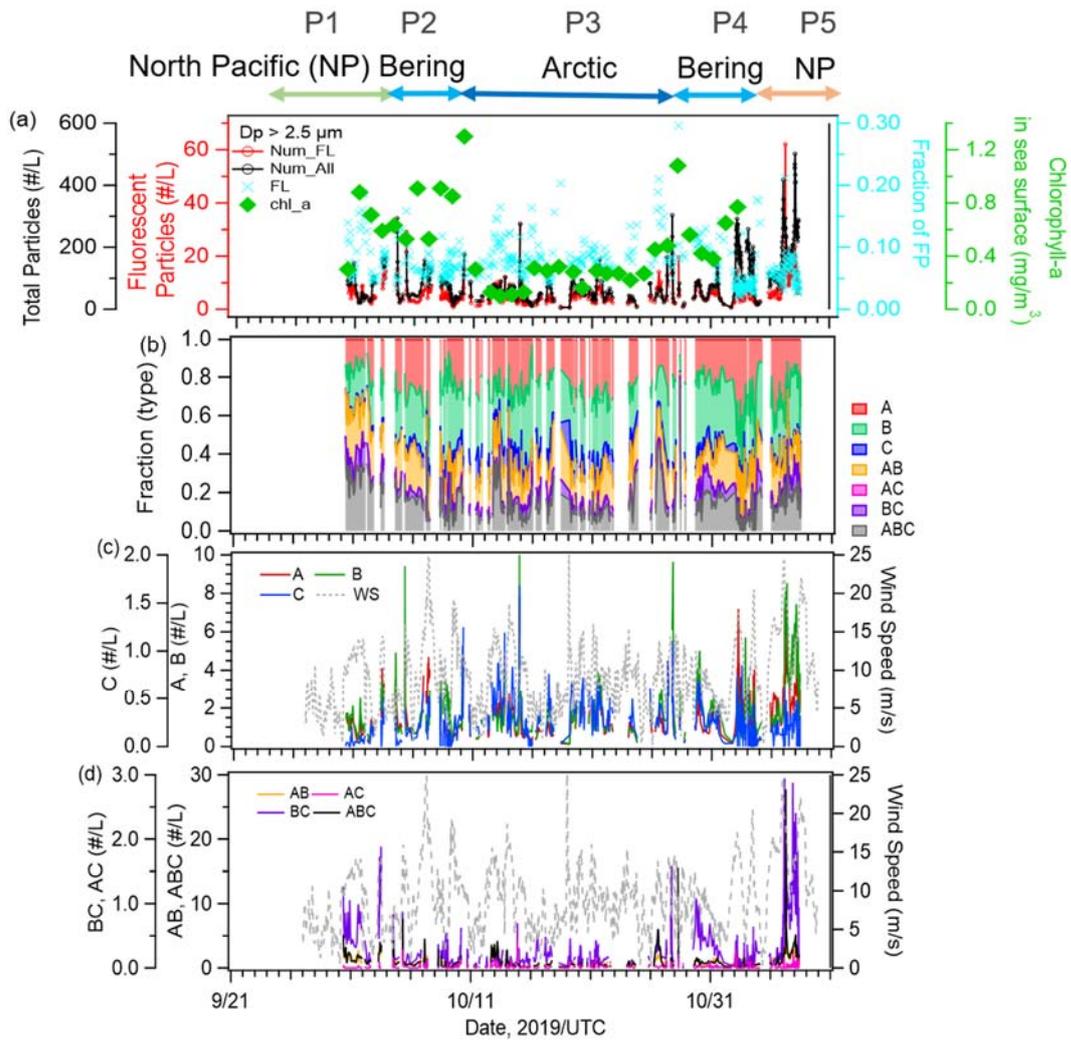


Figure S3. (a)–(d) Same as Fig. 4 but for fluorescent particles with diameter of $>2.5 \mu\text{m}$.

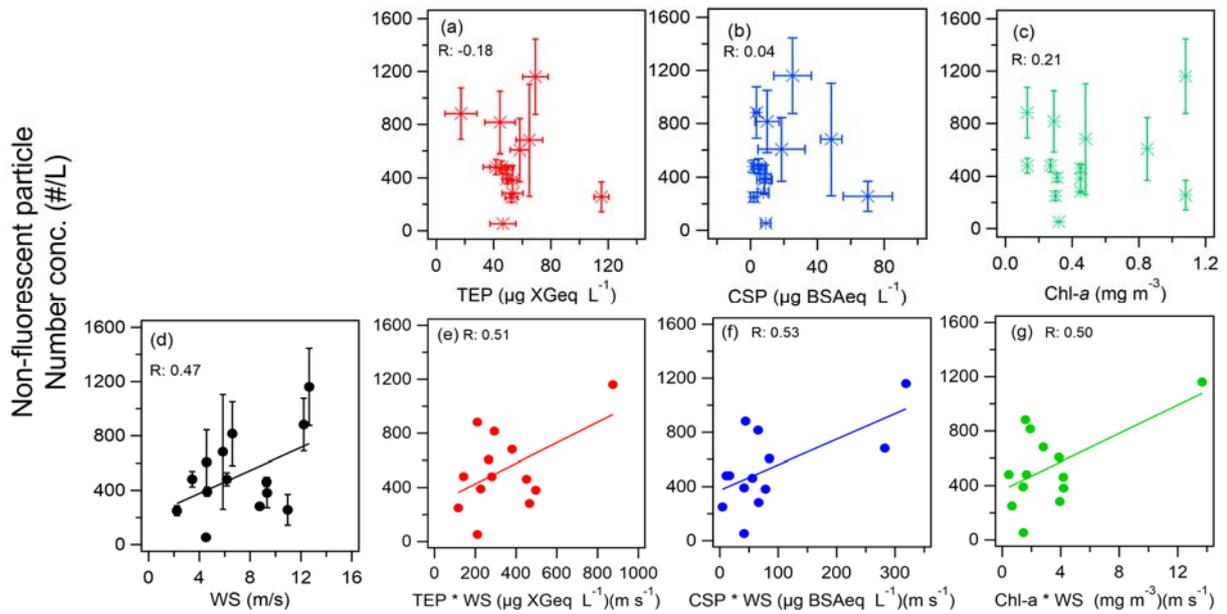


Figure S4. Scatterplots of nonfluorescent particles and bioindicators as (a) TEPs, (b) CSPs, and (c) Chl-*a*, and
 5 scatterplots of nonfluorescent particles and (d) WS, and (e) TEPs, (f) CSPs, and (g) Chl-*a*, multiplied with WS. Colored lines represent the orthogonal regression lines. Error bars represent one standard deviation.

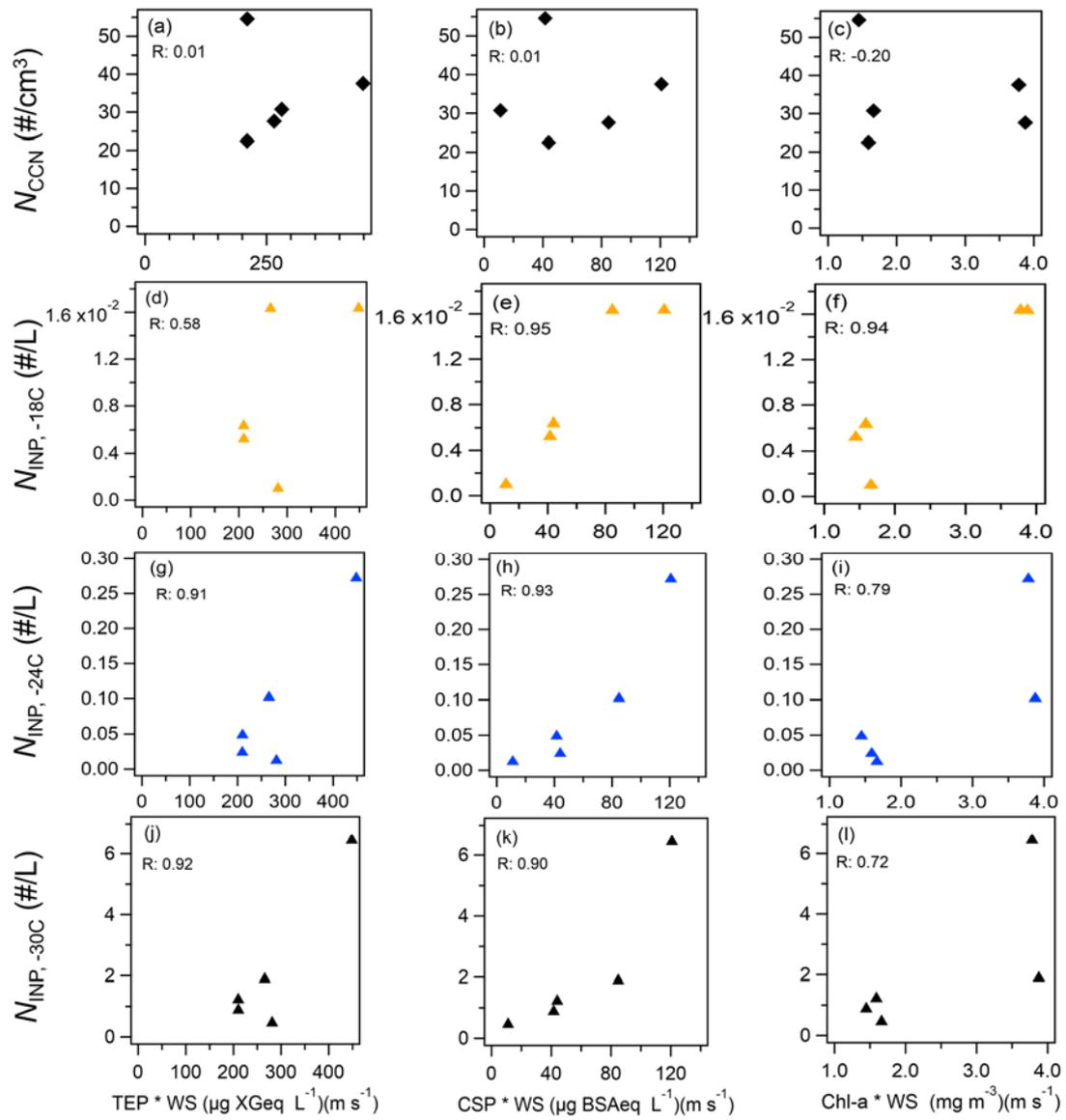


Figure S5. (a)–(l) Same as Fig. 7 but with exclusion of the highest data point.