

Supplementary Online Material

Fig. S1.

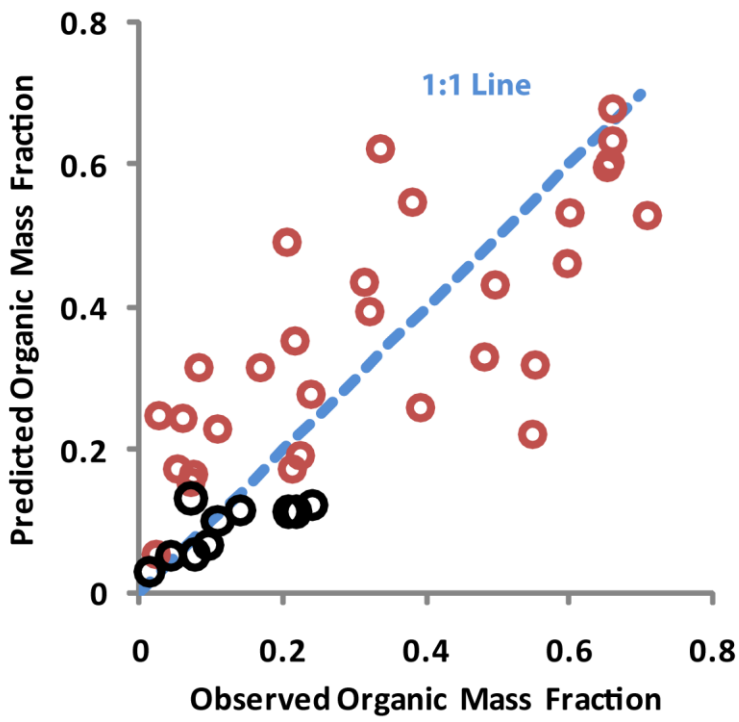


Fig S1. Scatterplot of predicted vs. observed organic mass fraction of sea spray for the Mace Head (red) and Point Reyes (black) sites with the 1:1 line in blue.

Fig. S2

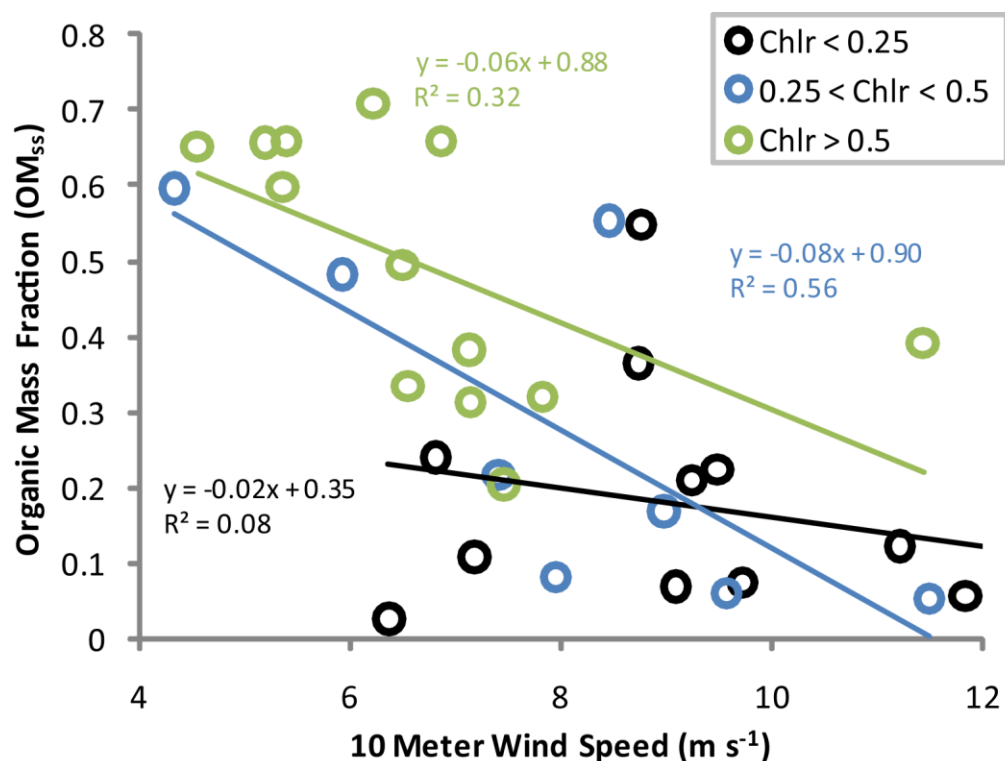


Fig. S2. Organic mass fraction of sea spray as a function of observed 10 meter wind speed ( $U_{10}$ ) for Mace Head as shown in Fig. 2a but with the colors representing the corresponding chlorophyll-*a* concentrations binned into “low” ( $[\text{Chl-}a] < 0.25 \text{ mg m}^{-3}$ , in black), “moderate” ( $0.25 < [\text{Chl-}a] < 0.5 \text{ mg m}^{-3}$ , in blue), and “high” ( $[\text{Chl-}a] > 0.5 \text{ mg m}^{-3}$ , in green) concentrations. The color of the linear trendlines correspond to the  $[\text{Chl-}a]$  bin.

Fig S3.

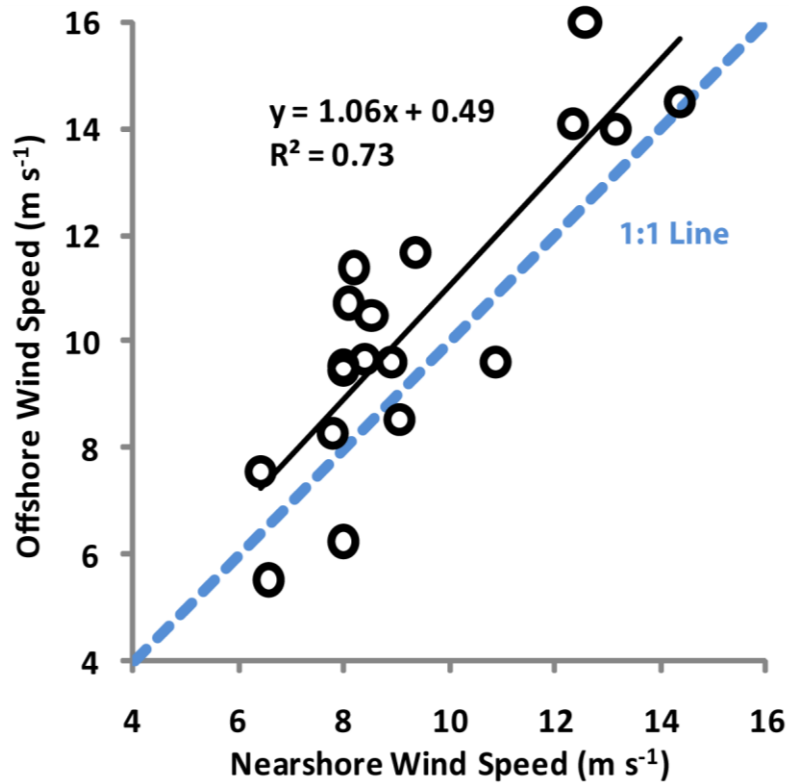


Fig. S3. Scatterplot of average nearshore (nearest 1° × 1° grid to Mace Head) and offshore (1° × 1° grid 24 hours upwind of Mace Head) wind speeds derived by NASA's Quick Scatterometer (QuikSCAT) during the Mace Head aerosol sampling periods with linear trendline in black and 1:1 line in blue.