Supplementary information
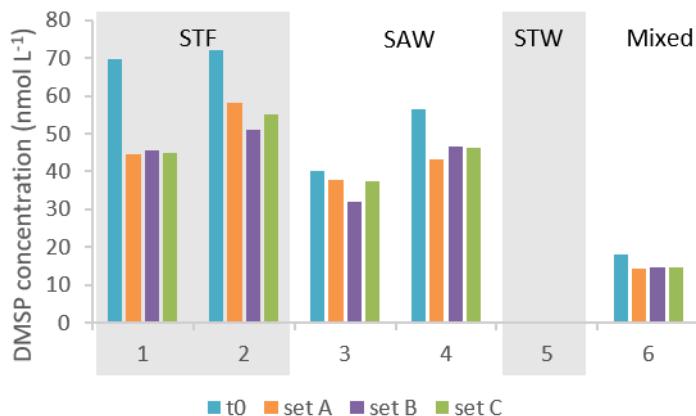
Figure S1: Initial and final DMSP concentration in the different treatments of SML water at each station. Water mass type is indicated by the label at the top of the figure and also the shading.
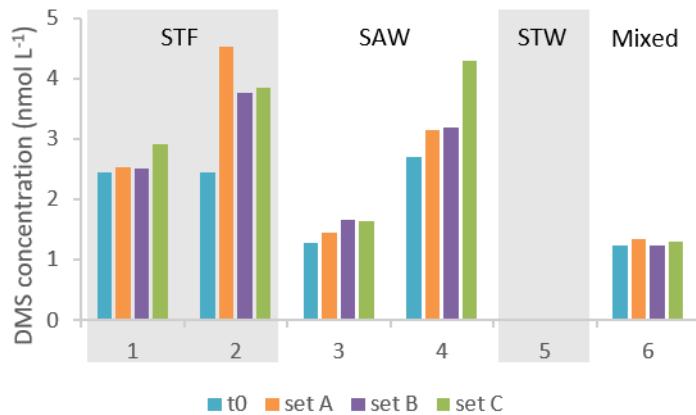
Figure S2: Initial and final DMS concentrations in the different SML treatments at each station. Water mass type is indicated by the label at the top of the figure and also the shading.

Table S1: Summary of Pearson test results in the white boxes, and Spearman's rank correlation in the shaded boxes, for DMSP and DMS processes. The correlations are significant when r or rho (for Pearson and Spearman's rank tests, respectively) is > 0.5 and p < 0.05, and are indicated by *. Diatom, dinoflagellate and small flagellate biomass from optical microscopy and size fraction summed biovolume from Flowcam.

Processes / Variables	$k_{DMS\ cn}$	$k_{DMS\ pr}$	$k_{DMS\ ir}$	$k_{DMSP\ cn}$	$k_{DMSP\ ir}$
Diatom	−0.80 (*0.33*)	0.30 (*0.70*)	0.32 (*0.68*)	−0.94 (*0.06*)	−0.55 (*0.45*)
Dinoflagellate	−0.60 (*0.42*)	0.18 (*0.82*)	0.04 (*0.96*)	**−0.99** (*0.01**)	−0.39 (*0.61*)
Small flagellate	−0.40 (*0.75*)	0.82 (*0.18*)	0.04 (*0.96*)	0.42 (*0.58*)	−0.56 (*0.44*)
Gymnodinium	−0.60 (*0.42*)	0.37 (*0.63*)	0.20 (*0.80*)	**−0.95** (*0.05**)	−0.50 (*0.50*)
Chl-*a*	−0.50 (*0.45*)	0.70 (*0.23*)	0.40 (*0.52*)	−0.90 (*0.08*)	0.20 (*0.78*)
DMSP	−0.50 (*0.45*)	0.65; (*0.23*)	0.46 (*0.44*)	**−0.92** (*0.03**)	0.14 (*0.82*)
DMS	−0.56 (*0.32*)	0.67 (*0.22*)	0.56 (*0.32*)	**−0.87** (*0.05**)	0.15 (*0.80*)
Bact. abundance	−0.30 (*0.68*)	0.07 (*0.91*)	0.80 (*0.11*)	−0.56 (*0.32*)	0.06 (*0.93*)
<10 µm	−0.80 (*0.13*)	0.22 (*0.73*)	0.33 (*0.59*)	−0.42 (*0.48*)	−0.63 (*0.25*)
10-20 µm	−0.70 (*0.23*)	0.80 (*0.13*)	0.60 (*0.35*)	−0.60 (*0.35*)	0 (*1*)
20-50 µm	−0.60 (*0.35*)	0.44 (*0.46*)	**0.91** (*0.03**)	−0.81 (*0.10*)	0.46 (*0.44*)
>50 µm	−0.60 (*0.35*)	0.21 (*0.74*)	0.61 (*0.28*)	**−0.97** (*<0.01**)	0.21 (*0.73*)