

Table 2: High resolution mass spectrometry results of DOM variables showing mean intensity weighted average of hydrogen to carbon (H/C_{wa}), oxygen to carbon (O/C_{wa}), molecular weight (MW_{wa}) and modified aromaticity index ($AI_{mod\ wa}$). SEM= standard error of difference between means. N = 3 for the start of incubation (t0) and end of incubation (t1) (36 hours) for filtered (F) water treatment.

Treatment	H/C_{wa} (SEM)	O/C_{wa} (SEM)	MW_{wa} (SEM)	$AI_{mod\ wa}$ (SEM)
Sep t0	1.31 (0.007)	0.49 (0.006)	361.40 (3)	0.21 (0.002)
Sep t1	1.25 (0.007)	0.52 (0.005)	365.09 (2)	0.24 (0.002)
Oct t0	1.27 (0.002)	0.51 (0.001)	364.53 (0)	0.23 (0.001)
Oct t1	1.27 (0.006)	0.51 (0.005)	361.95 (1)	0.22 (0.002)
Dec t0	1.28 (0.002)	0.51 (0.001)	369.83 (1)	0.22 (0.001)
Dec t1	1.29 (0.004)	0.51 (0.002)	366.95 (0)	0.22 (0.001)
Feb t0	1.28 (0.001)	0.51 (0.004)	366.05 (0)	0.22 (0.001)
Feb t1	1.30 (0.002)	0.50 (0.002)	363.38 (2)	0.21 (0.001)

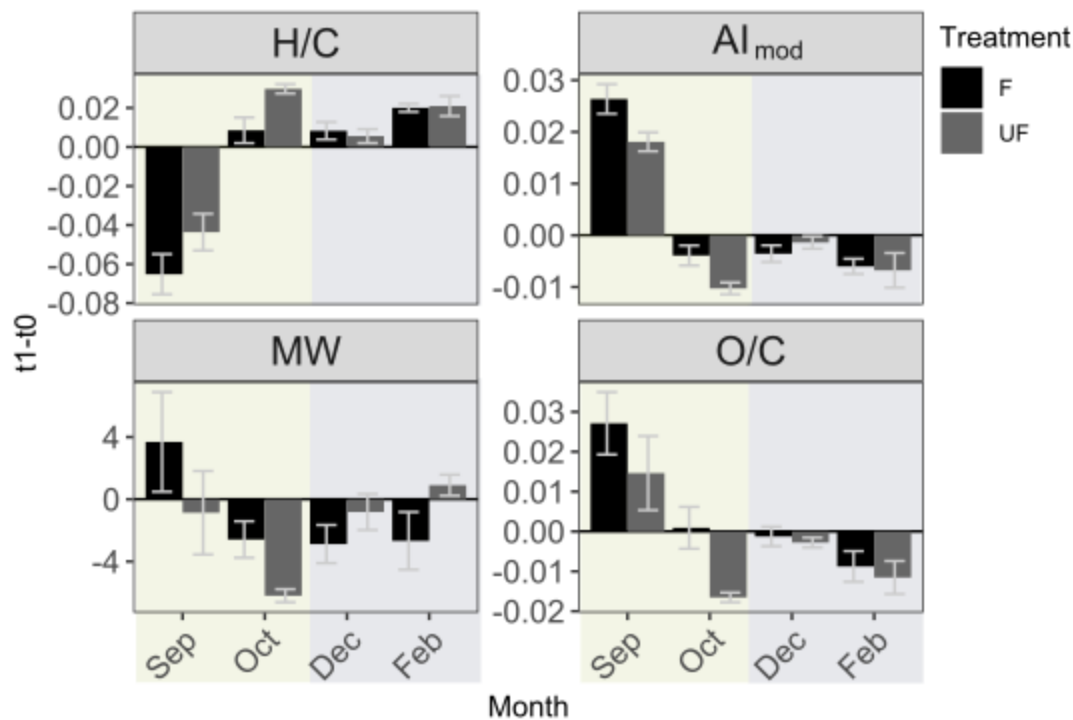
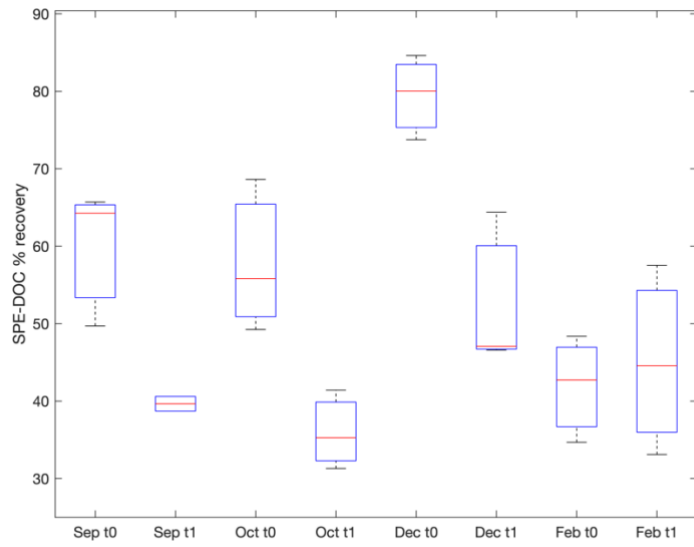


Figure 5: Change of DOM parameters during experiment incubations. a) change in intensity weighted average DOM parameters in seawater at t1 relative to t0. a) molecular weight (MW), b) oxygen to carbon ratio (O/C), c) hydrogen to carbon ratio (H/C), d) modified aromaticity index (AI_{mod}). The first treatment is filtered (F) seawater at start and end of incubation (t1 – t0) and the second treatment is unfiltered (UF) seawater for the duration of the incubation then filtered immediately prior to sampling and compared to filtered at the start (t0) incubation (t1 – t0). The background colors indicate the statistically identified winter (blue) and biologically productive (green) period, respectively.



Boxplot of SPE-DOC % recovery: This figure shows the SPE-DOC % recovery for the treatments at the start (t0) and end of incubation (t1).