|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table S1**. Generalized additive models (GAM) testing treatment (burned vs. unburned) and factor-smooth interaction effects on dissolved organic carbon and total dissolved nitrogen. Separate smoothers were fit for burned and unburned data, and anova tables were generated by *anova.gam*(). | | | | | |
| **Dissolved organic carbon (DOC mg/L)** | |  |  |  |  |
|  | *Effect* | *df /edf* | *Ref.df* | *F* | *p-value* |
| Time 0 | Treatment | 1 | – | 0.179 | 0.675 |
|  | s(plant material) : burned | 1.000 | 1.000 | 0.476 | 0.496 |
|  | s(plant material) : unburned | 1.269 | 1.488 | 0.532 | 0.443 |
|  |  |  |  |  |  |
| Time 1 | Treatment | 1 | – | 9.571 | **0.005** |
|  | s(plant material) : burned | 3.623 | 4.412 | 119.7 | **<0.001** |
|  | s(plant material) : unburned | 3.151 | 3.853 | 149.1 | **<0.001** |
|  |  |  |  |  |  |
| Time 2 | Treatment | 1 | – | 0.035 | 0.853 |
|  | s(plant material) : burned | 6.482 | 7.532 | 34.39 | **<0.001** |
|  | s(plant material) : unburned | 1.568 | 1.929 | 59.34 | **<0.001** |
|  |  |  |  |  |  |
| Time 3 | Treatment | 1 | – | 12.32 | **0.002** |
|  | s(plant material) : burned | 2.051 | 2.532 | 94.00 | **<0.001** |
|  | s(plant material) : unburned | 2.202 | 2.714 | 56.55 | **<0.001** |
|  |  |  |  |  |  |
| Time 4 | Treatment | 1 | – | 1.160 | 0.292 |
|  | s(plant material) : burned | 1.000 | 1.000 | 39.91 | **<0.001** |
|  | s(plant material) : unburned | 1.878 | 2.324 | 12.94 | **<0.001** |
|  |  |  |  |  |  |
| **Total dissolved nitrogen (TDN mg/L)** | |  |  |  |  |
| Time 0 | Treatment | 1 | – | 0.879 | 0.357 |
|  | s(plant material) : burned | 1.000 | 1.000 | 0.009 | 0.927 |
|  | s(plant material) : unburned | 1.000 | 1.000 | 6.303 | **0.019** |
|  |  |  |  |  |  |
| Time 1 | Treatment | 1 | – | 0.016 | 0.901 |
|  | s(plant material) : burned | 2.061 | 2.545 | 1.459 | 0.241 |
|  | s(plant material) : unburned | 2.725 | 3.344 | 4.978 | **0.007** |
|  |  |  |  |  |  |
| Time 2 | Treatment | 1 | – | 3.261 | 0.083 |
|  | s(plant material) : burned | 1.531 | 1.879 | 2.237 | **0.096** |
|  | s(plant material) : unburned | 1.237 | 1.434 | 3.614 | **0.042** |
|  |  |  |  |  |  |
| Time 3 | Treatment | 1 | – | 3.500 | 0.075 |
|  | s(plant material) : burned | 4.359 | 5.269 | 23.03 | **<0.001** |
|  | s(plant material) : unburned | 2.457 | 3.022 | 10.52 | **<0.001** |
|  |  |  |  |  |  |
| Time 4 | Treatment | 1 | – | 6.231 | **0.020** |
|  | s(plant material) : burned | 2.417 | 2.973 | 3.613 | **0.032** |
|  | s(plant material) : unburned | 1.000 | 1.000 | 0.531 | 0.473 |
| *Treatment* indicates the parametric term in GAM, *s(plant material)* is the smooth term for either burned or unburned treatments. *df / edf* column indicates either *df* (degrees of freedom) for parametric terms or *edf* (effective degrees of freedom) for smoother terms; *Ref.df* = reference degree of freedom, where dashes indicate NA for parametric terms. Significant effects (p<0.05) are in bold. | | | | | |