|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table S8**. Generalized additive models (GAM) testing treatment (burned vs. unburned) and factor-smooth interaction effects on net ecosystem productivity and net ecosystem respiration at 4 time point following the addition of plant material to experimental mesocosm. Separate smoothers were fit for burned and unburned data, and anova tables were generated by *anova.gam*(). | | | | | |
| **Net ecosystem productivity (NEP Δ O2 %)** | |  |  |  |  |
|  | *Effect* | *df /edf* | *Ref.df* | *F* | *p-value* |
| Day-10 | Treatment | 1 | – | 2.756 | 0.110 |
|  | s(plant material) : burned | 2.478 | 3.046 | 13.440 | **<0.001** |
|  | s(plant material) : unburned | 1.690 | 2.090 | 6.360 | **0.006** |
|  |  |  |  |  |  |
| Day-31 | Treatment | 1 | – | 8.479 | **0.007** |
|  | s(plant material) : burned | 1.967 | 2.431 | 7.392 | **0.002** |
|  | s(plant material) : unburned | 1.000 | 1.000 | 1.002 | 0.326 |
|  |  |  |  |  |  |
| Day-59 | Treatment | 1 | – | 8.118 | **0.009** |
|  | s(plant material) : burned | 3.414 | 4.166 | 8.236 | **<0.001** |
|  | s(plant material) : unburned | 3.124 | 3.821 | 2.940 | 0.053 |
|  |  |  |  |  |  |
| Day-89 | Treatment | 1 | – | 2.620 | 0.118 |
|  | s(plant material) : burned | 2.757 | 3.382 | 3.717 | **0.020** |
|  | s(plant material) : unburned | 1.000 | 1.000 | 1.002 | 0.327 |
|  |  |  |  |  |  |
| **Net ecosystem respiration (NER Δ O2 %)** | |  |  |  |  |
| Day-10 | Treatment | 1 | – | 1.520 | 0.229 |
|  | s(plant material) | 2.533 | 3.113 | 13.000 | **<0.001** |
|  |  |  |  |  |  |
| Day-31 | Treatment | 1 | – | 6.443 | 0.019 |
|  | s(plant material) | 5.710 | 6.758 | 10.000 | **<0.001** |
|  |  |  |  |  |  |
| Day-59 | Treatment | 1 | – | 5.669 | **0.027** |
|  | s(plant material) : burned | 3.762 | 4.576 | 13.144 | **<0.001** |
|  | s(plant material) : unburned | 3.274 | 4.000 | 7.775 | **<0.001** |
|  |  |  |  |  |  |
| Day-89 | Treatment | 1 | – | 3.380 | 0.078 |
|  | s(plant material) : burned | 2.927 | 3.587 | 5.293 | **0.004** |
|  | s(plant material) : unburned | 1.000 | 1.000 | 0.002 | 0.965 |
| *Treatment* indicates the parametric term in GAM, *s(plant material)* is the smooth term for either burned or unburned treatments. *df* = degrees of freedom for parametric terms; *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. | | | | | |