| Model | df | logLik | AICc | Delta AIC | Weight | R2 |
| --- | --- | --- | --- | --- | --- | --- |
| ER (µM C/g AFDM/h) | | | | | | |
| s(Temperature, Date) + s(N) | 6 | -400.6 | 816.5 | 0.00 | 0.34 | 0.24 |
| s(N) | 5 | -401.9 | 816.8 | 0.22 | 0.31 | 0.19 |
| s(Temperature) + s(N) | 5 | -401.9 | 816.8 | 0.22 | 0.31 | 0.19 |
| te(Temperature, N) | 10 | -398.6 | 822.8 | 6.21 | 0.02 | 0.24 |
| s(N, Date) | 6 | -404.9 | 823.7 | 7.16 | 0.01 | 0.15 |
| s(Temperature) + s(N, Date) | 6 | -404.9 | 823.7 | 7.17 | 0.01 | 0.15 |
| s(Temperature, Date) + s(N, Date) | 6 | -404.0 | 823.9 | 7.33 | 0.01 | 0.20 |
| s(Temperature, Date) | 3 | -409.3 | 826.9 | 10.40 | 0.00 | 0.08 |
| Intercept-only | 2 | -411.5 | 829.1 | 12.58 | 0.00 | 0.03 |
| s(Temperature) | 3 | -411.2 | 829.7 | 13.20 | 0.00 | 0.04 |
| te(Temperature, N, Date) | 14 | -396.9 | 834.5 | 17.96 | 0.00 | 0.34 |
| GPP (µM C/g AFDM/h) | | | | | | |
| s(N) | 6 | -449.1 | 913.8 | 0.00 | 0.32 | 0.51 |
| s(Temperature) + s(N) | 6 | -449.1 | 913.8 | 0.00 | 0.32 | 0.51 |
| s(Temperature, Date) + s(N) | 7 | -448.6 | 914.5 | 0.67 | 0.23 | 0.54 |
| s(N, Date) | 9 | -447.1 | 918.0 | 4.21 | 0.04 | 0.48 |
| s(Temperature) + s(N, Date) | 9 | -447.1 | 918.0 | 4.21 | 0.04 | 0.48 |
| s(Temperature, Date) + s(N, Date) | 10 | -446.1 | 918.6 | 4.75 | 0.03 | 0.52 |
| te(Temperature, N) | 12 | -444.6 | 920.5 | 6.67 | 0.01 | 0.67 |
| te(Temperature, N, Date) | 18 | -438.2 | 930.5 | 16.71 | 0.00 | 0.62 |
| s(Temperature, Date) | 3 | -472.7 | 953.7 | 39.88 | 0.00 | 0.12 |
| Intercept-only | 2 | -473.8 | 954.0 | 40.14 | 0.00 | 0.09 |
| s(Temperature) | 3 | -473.0 | 954.2 | 40.41 | 0.00 | 0.11 |
| NEP (µM C/g AFDM/h) | | | | | | |
| s(N) | 6 | -441.1 | 896.9 | 0.00 | 0.33 | 0.50 |
| s(Temperature) + s(N) | 6 | -441.1 | 896.9 | 0.00 | 0.33 | 0.50 |
| s(Temperature, Date) + s(N) | 6 | -441.1 | 896.9 | 0.00 | 0.33 | 0.50 |
| s(N, Date) | 5 | -447.1 | 905.4 | 8.50 | 0.00 | 0.25 |
| s(Temperature) + s(N, Date) | 5 | -447.1 | 905.4 | 8.51 | 0.00 | 0.25 |
| s(Temperature, Date) + s(N, Date) | 5 | -447.1 | 905.4 | 8.51 | 0.00 | 0.25 |
| te(Temperature, N) | 11 | -438.0 | 905.8 | 8.95 | 0.00 | 0.64 |
| te(Temperature, N, Date) | 14 | -438.2 | 916.8 | 19.94 | 0.00 | 0.33 |
| Intercept-only | 2 | -456.3 | 918.9 | 22.02 | 0.00 | 0.09 |
| s(Temperature, Date) | 2 | -456.3 | 918.9 | 22.03 | 0.00 | 0.09 |
| s(Temperature) | 3 | -455.9 | 919.4 | 22.52 | 0.00 | 0.10 |
| N fixation (µM N/g AFDM/h) | | | | | | |
| s(Temperature, Date) + s(N) | 9 | -99.8 | 221.3 | 0.00 | 0.67 | 0.64 |
| s(N) | 6 | -104.7 | 224.3 | 2.93 | 0.15 | 0.63 |
| s(Temperature) + s(N) | 6 | -104.7 | 224.3 | 2.94 | 0.15 | 0.63 |
| s(Temperature, Date) + s(N, Date) | 11 | -100.7 | 230.2 | 8.85 | 0.01 | 0.60 |
| s(N, Date) | 8 | -104.9 | 231.1 | 9.72 | 0.01 | 0.57 |
| s(Temperature) + s(N, Date) | 8 | -104.9 | 231.1 | 9.72 | 0.01 | 0.57 |
| te(Temperature, N) | 13 | -100.2 | 237.5 | 16.15 | 0.00 | 0.65 |
| te(Temperature, N, Date) | 19 | -101.9 | 260.9 | 39.54 | 0.00 | 0.54 |
| Intercept-only | 3 | -148.9 | 304.3 | 82.94 | 0.00 | 0.00 |
| s(Temperature) | 3 | -148.9 | 304.3 | 82.94 | 0.00 | 0.00 |
| s(Temperature, Date) | 3 | -148.9 | 304.3 | 82.95 | 0.00 | 0.00 |
| NH4 uptake (µM N/g AFDM/h) | | | | | | |
| s(Temperature, Date) + s(N) | 8 | -320.5 | 660.8 | 0.00 | 0.73 | 0.51 |
| s(N) | 7 | -323.7 | 664.5 | 3.72 | 0.11 | 0.38 |
| s(Temperature) + s(N) | 8 | -322.6 | 664.6 | 3.81 | 0.11 | 0.43 |
| s(Temperature, Date) + s(N, Date) | 9 | -322.7 | 667.7 | 6.92 | 0.02 | 0.56 |
| te(Temperature, N) | 11 | -318.9 | 668.3 | 7.53 | 0.02 | 0.58 |
| s(N, Date) | 8 | -325.3 | 670.2 | 9.42 | 0.01 | 0.42 |
| s(Temperature) + s(N, Date) | 9 | -324.3 | 670.6 | 9.82 | 0.01 | 0.48 |
| te(Temperature, N, Date) | 17 | -316.6 | 682.5 | 21.72 | 0.00 | 0.74 |
| s(Temperature, Date) | 4 | -337.0 | 685.1 | 24.31 | 0.00 | 0.11 |
| s(Temperature) | 4 | -339.0 | 688.8 | 28.06 | 0.00 | 0.09 |
| Intercept-only | 3 | -340.8 | 690.3 | 29.47 | 0.00 | 0.06 |
| Tot. N Assim (µM N/g AFDM/h) | | | | | | |
| s(Temperature, Date) + s(N) | 8 | -322.2 | 664.4 | 0.00 | 0.71 | 0.54 |
| s(N) | 7 | -325.3 | 667.9 | 3.50 | 0.12 | 0.41 |
| s(Temperature) + s(N) | 8 | -324.3 | 668.1 | 3.67 | 0.11 | 0.44 |
| s(Temperature, Date) + s(N, Date) | 10 | -322.0 | 670.6 | 6.25 | 0.03 | 0.58 |
| s(N, Date) | 9 | -325.2 | 673.7 | 9.27 | 0.01 | 0.43 |
| s(Temperature) + s(N, Date) | 10 | -324.0 | 673.8 | 9.42 | 0.01 | 0.48 |
| te(Temperature, N) | 12 | -321.7 | 674.9 | 10.53 | 0.00 | 0.57 |
| te(Temperature, N, Date) | 18 | -319.0 | 691.1 | 26.74 | 0.00 | 0.73 |
| s(Temperature, Date) | 4 | -341.2 | 693.4 | 29.03 | 0.00 | 0.10 |
| s(Temperature) | 4 | -343.2 | 697.3 | 32.93 | 0.00 | 0.08 |
| Intercept-only | 3 | -344.6 | 697.9 | 33.52 | 0.00 | 0.06 |