| Model | df | logLik | AICc | Delta AIC | Weight | R2 |
| --- | --- | --- | --- | --- | --- | --- |
| ER (µM C/g AFDM/h) | | | | | | |
| s(Temperature) | 6 | -362.6 | 739.7 | 0.00 | 0.44 | 0.19 |
| s(Temperature) + s(N) | 6 | -362.1 | 740.2 | 0.50 | 0.34 | 0.20 |
| s(N, Date) | 3 | -368.2 | 744.5 | 4.76 | 0.04 | 0.07 |
| s(Temperature) + s(N, Date) | 3 | -368.2 | 744.5 | 4.77 | 0.04 | 0.07 |
| s(Temperature, Date) + s(N, Date) | 3 | -368.1 | 744.6 | 4.86 | 0.04 | 0.07 |
| Intercept-only | 2 | -369.8 | 745.5 | 5.77 | 0.02 | 0.04 |
| s(Temperature, Date) | 2 | -369.8 | 745.5 | 5.82 | 0.02 | 0.04 |
| s(N) | 2 | -369.7 | 745.5 | 5.85 | 0.02 | 0.04 |
| s(Temperature, Date) + s(N) | 2 | -369.7 | 745.6 | 5.90 | 0.02 | 0.04 |
| te(Temperature, N) | 10 | -361.3 | 747.6 | 7.87 | 0.01 | 0.19 |
| te(Temperature, N, Date) | 10 | -362.3 | 750.6 | 10.92 | 0.00 | 0.17 |
| GPP (µM C/g AFDM/h) | | | | | | |
| s(Temperature) + s(N, Date) | 7 | -408.4 | 834.7 | 0.00 | 0.67 | 0.45 |
| s(Temperature) + s(N) | 7 | -410.0 | 837.5 | 2.83 | 0.16 | 0.41 |
| s(Temperature) | 6 | -411.7 | 838.2 | 3.52 | 0.12 | 0.40 |
| s(Temperature, Date) + s(N, Date) | 10 | -407.9 | 840.9 | 6.21 | 0.03 | 0.44 |
| s(Temperature, Date) + s(N) | 9 | -409.7 | 843.9 | 9.23 | 0.01 | 0.39 |
| s(Temperature, Date) | 8 | -411.3 | 844.2 | 9.52 | 0.01 | 0.38 |
| te(Temperature, N) | 11 | -407.8 | 845.8 | 11.16 | 0.00 | 0.42 |
| te(Temperature, N, Date) | 19 | -401.4 | 863.0 | 28.37 | 0.00 | 0.54 |
| s(N, Date) | 3 | -428.3 | 865.2 | 30.54 | 0.00 | 0.03 |
| Intercept-only | 3 | -429.8 | 866.0 | 31.31 | 0.00 | 0.00 |
| s(N) | 3 | -429.5 | 866.4 | 31.73 | 0.00 | 0.01 |
| NEP (µM C/g AFDM/h) | | | | | | |
| s(Temperature) + s(N, Date) | 6 | -399.1 | 813.8 | 0.00 | 0.39 | 0.46 |
| s(Temperature) + s(N) | 6 | -399.6 | 814.5 | 0.65 | 0.28 | 0.42 |
| s(Temperature) | 5 | -400.8 | 814.6 | 0.74 | 0.27 | 0.42 |
| s(Temperature, Date) + s(N, Date) | 9 | -398.1 | 819.7 | 5.86 | 0.02 | 0.43 |
| s(Temperature, Date) | 8 | -400.1 | 820.5 | 6.66 | 0.01 | 0.39 |
| s(Temperature, Date) + s(N) | 9 | -398.8 | 820.6 | 6.79 | 0.01 | 0.39 |
| te(Temperature, N) | 10 | -397.7 | 823.0 | 9.17 | 0.00 | 0.42 |
| te(Temperature, N, Date) | 18 | -395.5 | 845.0 | 31.15 | 0.00 | 0.48 |
| Intercept-only | 2 | -421.5 | 847.1 | 33.33 | 0.00 | 0.00 |
| s(N) | 2 | -421.5 | 847.1 | 33.33 | 0.00 | 0.00 |
| s(N, Date) | 2 | -420.9 | 847.6 | 33.75 | 0.00 | 0.01 |
| N fixation (µM N/g AFDM/h) | | | | | | |
| s(Temperature) | 3 | -197.6 | 403.5 | 0.00 | 0.21 | 0.19 |
| s(Temperature) + s(N) | 3 | -197.6 | 403.5 | 0.00 | 0.21 | 0.19 |
| s(Temperature) + s(N, Date) | 4 | -197.2 | 404.0 | 0.45 | 0.17 | 0.19 |
| s(Temperature, Date) | 4 | -196.9 | 404.4 | 0.89 | 0.14 | 0.19 |
| s(Temperature, Date) + s(N) | 4 | -196.9 | 404.4 | 0.89 | 0.14 | 0.19 |
| s(Temperature, Date) + s(N, Date) | 5 | -196.6 | 404.9 | 1.35 | 0.11 | 0.19 |
| te(Temperature, N) | 6 | -196.5 | 407.7 | 4.15 | 0.03 | 0.20 |
| Intercept-only | 2 | -206.5 | 417.6 | 14.05 | 0.00 | 0.00 |
| s(N) | 2 | -206.5 | 417.6 | 14.05 | 0.00 | 0.00 |
| s(N, Date) | 2 | -206.5 | 417.6 | 14.06 | 0.00 | 0.00 |
| te(Temperature, N, Date) | 12 | -192.5 | 418.2 | 14.73 | 0.00 | 0.23 |