## Fig S1

| Summer Growth (mm/day) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| group |  | Estimate | SE | df | statistic | p-value |
| Fixed effects | | | | | | |
|  | (Intercept) | 6.538 | 0.280 | 243 | 23.319 | <0.0001 |
|  | TreatS | -0.351 | 0.384 | 243 | -0.914 | 0.3615 |
|  | MonthAug | -1.544 | 0.400 | 243 | -3.858 | 0.0001 |
|  | MonthSep | -0.899 | 0.394 | 243 | -2.282 | 0.0234 |
|  | SiteEel Pond | 1.553 | 0.372 | 243 | 4.173 | <0.0001 |
|  | SiteDennis | -0.978 | 0.430 | 243 | -2.273 | 0.0239 |
|  | TreatS:MonthAug | 0.767 | 0.604 | 243 | 1.270 | 0.2055 |
|  | TreatS:MonthSep | -0.732 | 0.573 | 243 | -1.278 | 0.2024 |
|  | TreatS:SiteEel Pond | 0.199 | 0.488 | 243 | 0.408 | 0.6838 |
|  | TreatS:SiteDennis | 0.540 | 0.623 | 243 | 0.866 | 0.3871 |
|  | MonthAug:SiteEel Pond | -1.354 | 0.797 | 243 | -1.700 | 0.0905 |
|  | MonthSep:SiteEel Pond | -1.598 | 1.065 | 243 | -1.501 | 0.1347 |
|  | MonthAug:SiteDennis | 2.393 | 0.618 | 243 | 3.870 | 0.0001 |
|  | MonthSep:SiteDennis | 2.430 | 0.771 | 243 | 3.152 | 0.0018 |
|  | TreatS:MonthAug:SiteEel Pond | 1.986 | 1.012 | 243 | 1.963 | 0.0508 |
|  | TreatS:MonthSep:SiteEel Pond | 0.492 | 1.221 | 243 | 0.403 | 0.6871 |
|  | TreatS:MonthAug:SiteDennis | -0.570 | 1.021 | 243 | -0.558 | 0.5772 |
|  | TreatS:MonthSep:SiteDennis | 0.442 | 1.053 | 243 | 0.419 | 0.6753 |
| Random effects | | | | | | |
| Enclosure | sd\_(Intercept) | 0.495 |  |  |  |  |
| Residual | sd\_Observation | 0.963 |  |  |  |  |
| square root of the estimated residual variance: 1.0 | | | | | | |

## Fig S2

| Fall Growth (mm/day) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| group |  | Estimate | SE | df | statistic | p-value |
| Fixed effects | | | | | | |
|  | (Intercept) | 4.652 | 0.139 | 208 | 33.372 | <0.0001 |
|  | TreatS | 0.026 | 0.177 | 208 | 0.150 | 0.8812 |
|  | MonthApr | -0.843 | 0.174 | 208 | -4.846 | <0.0001 |
|  | MonthJun | -0.576 | 0.179 | 208 | -3.217 | 0.0015 |
|  | SiteEel Pond | -1.707 | 0.158 | 208 | -10.827 | <0.0001 |
|  | TreatS:MonthApr | 0.058 | 0.235 | 208 | 0.246 | 0.8058 |
|  | TreatS:MonthJun | -0.062 | 0.237 | 208 | -0.262 | 0.7939 |
|  | TreatS:SiteEel Pond | -0.604 | 0.226 | 208 | -2.676 | 0.0080 |
|  | MonthApr:SiteEel Pond | 0.434 | 0.241 | 208 | 1.799 | 0.0734 |
|  | MonthJun:SiteEel Pond | 0.733 | 0.291 | 208 | 2.521 | 0.0125 |
|  | TreatS:MonthApr:SiteEel Pond | 0.523 | 0.350 | 208 | 1.496 | 0.1363 |
|  | TreatS:MonthJun:SiteEel Pond | -0.234 | 0.583 | 208 | -0.401 | 0.6892 |
| Random effects | | | | | | |
| Enclosure | sd\_(Intercept) | 0.185 |  |  |  |  |
| Residual | sd\_Observation | 0.429 |  |  |  |  |
| square root of the estimated residual variance: 0.4 | | | | | | |

## Fig S3

| Summer CI (cm/mm^3) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| group |  | Estimate | SE | df | statistic | p-value |
| Fixed effects | | | | | | |
|  | (Intercept) | 5.226 | 0.129 | 243 | 40.372 | <0.0001 |
|  | TreatS | 0.115 | 0.190 | 243 | 0.603 | 0.5468 |
|  | MonthAug | -0.158 | 0.204 | 243 | -0.772 | 0.4406 |
|  | MonthSep | 0.128 | 0.189 | 243 | 0.676 | 0.4995 |
|  | SiteEel Pond | 1.445 | 0.180 | 243 | 8.011 | <0.0001 |
|  | SiteDennis | 2.438 | 0.226 | 243 | 10.790 | <0.0001 |
|  | TreatS:MonthAug | 0.350 | 0.329 | 243 | 1.062 | 0.2893 |
|  | TreatS:MonthSep | -0.233 | 0.290 | 243 | -0.804 | 0.4224 |
|  | TreatS:SiteEel Pond | 0.001 | 0.260 | 243 | 0.005 | 0.9956 |
|  | TreatS:SiteDennis | -0.443 | 0.325 | 243 | -1.362 | 0.1744 |
|  | MonthAug:SiteEel Pond | -1.529 | 0.472 | 243 | -3.241 | 0.0014 |
|  | MonthSep:SiteEel Pond | -0.868 | 0.726 | 243 | -1.196 | 0.2330 |
|  | MonthAug:SiteDennis | 0.580 | 0.360 | 243 | 1.609 | 0.1089 |
|  | MonthSep:SiteDennis | -0.594 | 0.416 | 243 | -1.426 | 0.1553 |
|  | TreatS:MonthAug:SiteEel Pond | 0.163 | 0.613 | 243 | 0.267 | 0.7899 |
|  | TreatS:MonthSep:SiteEel Pond | -0.653 | 0.812 | 243 | -0.804 | 0.4221 |
|  | TreatS:MonthAug:SiteDennis | -0.873 | 0.567 | 243 | -1.539 | 0.1251 |
|  | TreatS:MonthSep:SiteDennis | 0.659 | 0.550 | 243 | 1.199 | 0.2316 |
| Random effects | | | | | | |
| Enclosure | sd\_(Intercept) | 0.099 |  |  |  |  |
| Residual | sd\_Observation | 0.688 |  |  |  |  |
| square root of the estimated residual variance: 0.7 | | | | | | |

## Fig S4

| Fall CI (cm/mm^3) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| group |  | Estimate | SE | df | statistic | p-value |
| Fixed effects | | | | | | |
|  | (Intercept) | 8.986 | 0.302 | 208 | 29.747 | <0.0001 |
|  | TreatS | -0.726 | 0.382 | 208 | -1.901 | 0.0587 |
|  | MonthApr | 3.594 | 0.374 | 208 | 9.602 | <0.0001 |
|  | MonthJun | 3.017 | 0.384 | 208 | 7.853 | <0.0001 |
|  | SiteEel Pond | -3.032 | 0.353 | 208 | -8.591 | <0.0001 |
|  | TreatS:MonthApr | 0.790 | 0.500 | 208 | 1.580 | 0.1156 |
|  | TreatS:MonthJun | -0.006 | 0.507 | 208 | -0.011 | 0.9910 |
|  | TreatS:SiteEel Pond | 1.261 | 0.497 | 208 | 2.539 | 0.0119 |
|  | MonthApr:SiteEel Pond | 0.287 | 0.535 | 208 | 0.536 | 0.5924 |
|  | MonthJun:SiteEel Pond | -2.036 | 0.651 | 208 | -3.128 | 0.0020 |
|  | TreatS:MonthApr:SiteEel Pond | -1.428 | 0.770 | 208 | -1.854 | 0.0651 |
|  | TreatS:MonthJun:SiteEel Pond | -0.107 | 1.295 | 208 | -0.083 | 0.9342 |
| Random effects | | | | | | |
| Enclosure | sd\_(Intercept) | 0.361 |  |  |  |  |
| Residual | sd\_Observation | 0.971 |  |  |  |  |
| square root of the estimated residual variance: 1.0 | | | | | | |

## Fig S5

| Summer length (mm) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| group |  | Estimate | SE | df | statistic | p-value |
| Fixed effects | | | | | | |
|  | (Intercept) | 24.881 | 0.758 | 243 | 32.829 | <0.0001 |
|  | TreatS | -0.812 | 1.067 | 243 | -0.762 | 0.4471 |
|  | MonthAug | 3.578 | 1.121 | 243 | 3.191 | 0.0016 |
|  | MonthSep | 10.182 | 1.081 | 243 | 9.415 | <0.0001 |
|  | SiteEel Pond | -3.171 | 1.030 | 243 | -3.079 | 0.0023 |
|  | SiteDennis | -2.945 | 1.213 | 243 | -2.429 | 0.0159 |
|  | TreatS:MonthAug | 1.127 | 1.742 | 243 | 0.647 | 0.5183 |
|  | TreatS:MonthSep | -0.328 | 1.601 | 243 | -0.205 | 0.8380 |
|  | TreatS:SiteEel Pond | 0.358 | 1.395 | 243 | 0.257 | 0.7977 |
|  | TreatS:SiteDennis | 1.884 | 1.749 | 243 | 1.077 | 0.2825 |
|  | MonthAug:SiteEel Pond | -0.452 | 2.343 | 243 | -0.193 | 0.8472 |
|  | MonthSep:SiteEel Pond | -0.113 | 3.299 | 243 | -0.034 | 0.9727 |
|  | MonthAug:SiteDennis | 6.034 | 1.809 | 243 | 3.337 | 0.0010 |
|  | MonthSep:SiteDennis | 10.544 | 2.197 | 243 | 4.799 | <0.0001 |
|  | TreatS:MonthAug:SiteEel Pond | 5.517 | 3.020 | 243 | 1.827 | 0.0689 |
|  | TreatS:MonthSep:SiteEel Pond | 2.217 | 3.749 | 243 | 0.591 | 0.5549 |
|  | TreatS:MonthAug:SiteDennis | 0.684 | 2.950 | 243 | 0.232 | 0.8168 |
|  | TreatS:MonthSep:SiteDennis | -1.618 | 2.961 | 243 | -0.546 | 0.5853 |
| Random effects | | | | | | |
| Enclosure | sd\_(Intercept) | 1.153 |  |  |  |  |
| Residual | sd\_Observation | 3.034 |  |  |  |  |
| square root of the estimated residual variance: 3.0 | | | | | | |

## Fig S6

| Fall length (mm) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| group |  | Estimate | SE | df | statistic | p-value |
| Fixed effects | | | | | | |
|  | (Intercept) | 22.236 | 0.799 | 208 | 27.838 | <0.0001 |
|  | TreatS | -0.538 | 1.008 | 208 | -0.533 | 0.5945 |
|  | MonthApr | 14.442 | 0.986 | 208 | 14.642 | <0.0001 |
|  | MonthJun | 23.915 | 1.011 | 208 | 23.664 | <0.0001 |
|  | SiteEel Pond | -3.423 | 0.950 | 208 | -3.602 | 0.0004 |
|  | TreatS:MonthApr | 0.845 | 1.311 | 208 | 0.645 | 0.5198 |
|  | TreatS:MonthJun | 0.083 | 1.334 | 208 | 0.062 | 0.9505 |
|  | TreatS:SiteEel Pond | -1.275 | 1.324 | 208 | -0.963 | 0.3368 |
|  | MonthApr:SiteEel Pond | -4.699 | 1.433 | 208 | -3.278 | 0.0012 |
|  | MonthJun:SiteEel Pond | -2.866 | 1.753 | 208 | -1.634 | 0.1037 |
|  | TreatS:MonthApr:SiteEel Pond | 1.566 | 2.055 | 208 | 0.762 | 0.4468 |
|  | TreatS:MonthJun:SiteEel Pond | -6.536 | 3.474 | 208 | -1.881 | 0.0613 |
| Random effects | | | | | | |
| Enclosure | sd\_(Intercept) | 0.895 |  |  |  |  |
| Residual | sd\_Observation | 2.631 |  |  |  |  |
| square root of the estimated residual variance: 2.6 | | | | | | |

## Fig S7

| Summer AFDW (g) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| group |  | Estimate | SE | df | statistic | p-value |
| Fixed effects | | | | | | |
|  | (Intercept) | 2.419 | 0.386 | 243 | 6.260 | <0.0001 |
|  | TreatS | -0.163 | 0.567 | 243 | -0.287 | 0.7740 |
|  | MonthAug | 1.274 | 0.611 | 243 | 2.086 | 0.0380 |
|  | MonthSep | 4.926 | 0.563 | 243 | 8.742 | <0.0001 |
|  | SiteEel Pond | -0.180 | 0.539 | 243 | -0.333 | 0.7392 |
|  | SiteDennis | 0.143 | 0.676 | 243 | 0.211 | 0.8330 |
|  | TreatS:MonthAug | 0.570 | 0.986 | 243 | 0.578 | 0.5636 |
|  | TreatS:MonthSep | -0.789 | 0.866 | 243 | -0.911 | 0.3632 |
|  | TreatS:SiteEel Pond | -0.132 | 0.776 | 243 | -0.170 | 0.8648 |
|  | TreatS:SiteDennis | 0.462 | 0.973 | 243 | 0.475 | 0.6351 |
|  | MonthAug:SiteEel Pond | -1.029 | 1.416 | 243 | -0.727 | 0.4682 |
|  | MonthSep:SiteEel Pond | -1.304 | 2.185 | 243 | -0.597 | 0.5513 |
|  | MonthAug:SiteDennis | 3.787 | 1.081 | 243 | 3.504 | 0.0005 |
|  | MonthSep:SiteDennis | 9.959 | 1.247 | 243 | 7.985 | <0.0001 |
|  | TreatS:MonthAug:SiteEel Pond | 2.319 | 1.838 | 243 | 1.261 | 0.2085 |
|  | TreatS:MonthSep:SiteEel Pond | 1.491 | 2.444 | 243 | 0.610 | 0.5422 |
|  | TreatS:MonthAug:SiteDennis | 0.408 | 1.699 | 243 | 0.240 | 0.8103 |
|  | TreatS:MonthSep:SiteDennis | -0.891 | 1.646 | 243 | -0.541 | 0.5887 |
| Random effects | | | | | | |
| Enclosure | sd\_(Intercept) | 0.279 |  |  |  |  |
| Residual | sd\_Observation | 2.073 |  |  |  |  |
| square root of the estimated residual variance: 2.1 | | | | | | |
| data's log-likelihood under the model: -601.4 | | | | | | |
| Akaike Information Criterion: 1,242.8 | | | | | | |
| Bayesian Information Criterion: 1,314.7 | | | | | | |

## Fig S8

| Fall AFDW (g) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| group |  | Estimate | SE | df | statistic | p-value |
| Fixed effects | | | | | | |
|  | (Intercept) | 0.087 | 0.051 | 208 | 1.702 | 0.0902 |
|  | TreatS | -0.004 | 0.065 | 208 | -0.057 | 0.9547 |
|  | MonthApr | 0.534 | 0.064 | 208 | 8.327 | <0.0001 |
|  | MonthJun | 1.108 | 0.066 | 208 | 16.757 | <0.0001 |
|  | SiteEel Pond | -0.085 | 0.058 | 208 | -1.472 | 0.1426 |
|  | TreatS:MonthApr | 0.048 | 0.087 | 208 | 0.552 | 0.5814 |
|  | TreatS:MonthJun | -0.087 | 0.087 | 208 | -0.997 | 0.3198 |
|  | TreatS:SiteEel Pond | 0.023 | 0.083 | 208 | 0.273 | 0.7854 |
|  | MonthApr:SiteEel Pond | -0.306 | 0.088 | 208 | -3.467 | 0.0006 |
|  | MonthJun:SiteEel Pond | -0.698 | 0.106 | 208 | -6.551 | <0.0001 |
|  | TreatS:MonthApr:SiteEel Pond | -0.045 | 0.128 | 208 | -0.351 | 0.7260 |
|  | TreatS:MonthJun:SiteEel Pond | -0.117 | 0.214 | 208 | -0.547 | 0.5851 |
| Random effects | | | | | | |
| Enclosure | sd\_(Intercept) | 0.070 |  |  |  |  |
| Residual | sd\_Observation | 0.157 |  |  |  |  |
| square root of the estimated residual variance: 0.2 | | | | | | |