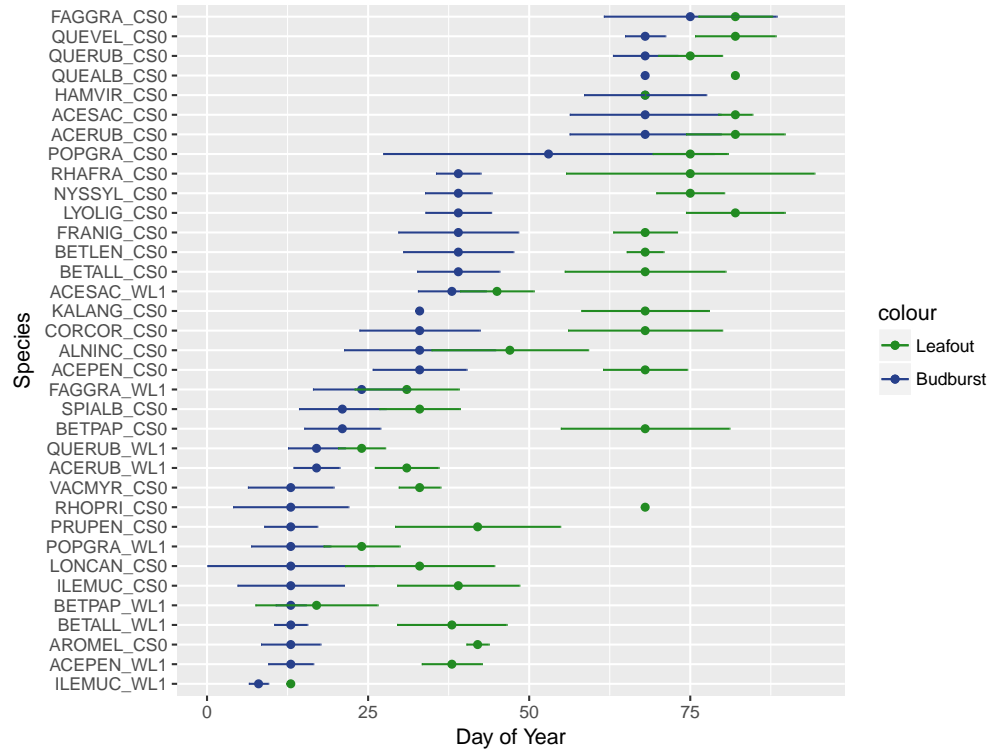# US-NPN Timeline Figures

Figure 1: Day of budburst and the day of leaf out for native tree species in New England. Data was collected from a growth chamber experiment using any combination of two photoperiod treatments, two forcing treatments, and three chilling treatments. The standard deviation is represented in blue for budburst and green for leaf out.

Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 119.1 1 1.9246 0.1682 warm 4883.5 1 78.8970 1.602e-14 *** photo 1300.3 1 21.0076 1.235e-05 *** Residuals 6684.9 108 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0.6 1 0.0094 0.923076 warm 1742.3 1 26.3542 1.402e-06 *** photo 462.9 1 7.0015 0.009461 ** Residuals 6611.2 100 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 15.5 1 0.2174 0.6426 warm 269.9 1 3.7758 0.0564 . photo 224.8 1 3.1453 0.0809 . Residuals 4574.7 64 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova

Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 1025.1 1 5.9585 0.01929 * photo 198.5 1 1.1541 0.28930 Residuals 6709.5 39 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 374.08 1 40.041 0.0001364 *** photo 126.75 1 13.567 0.0050493 ** Residuals 84.08 9 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 287.1 1 5.3166 0.0226709 * warm 1464.4 1 27.1142 7.109e-07 *** photo 617.1 1 11.4266 0.0009506 *** Residuals 7183.3 133 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 1383.03 1 18.8814 0.0003139 *** photo 539.58 1 7.3665 0.0133581 * Residuals 1464.97 20 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 4.6 1 0.0554 0.8142417 warm 1780.6 1 21.6850 7.928e-06 *** photo 1104.1 1 13.4457 0.0003587 *** Residuals 10510.5 128 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 941.67 1 14.261 0.0005059 *** photo 660.25 1 9.999 0.0029452 ** Residuals 2707.30 41 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 60.29 1 1.3655 0.2467952 warm 722.34 1 16.3610 0.0001396 *** photo 2.08 1 0.0472 0.8287207 Residuals 2913.91 66 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 1094.34 1 23.115 2.416e-05 *** photo 519.11 1 10.965 0.002043 ** Residuals 1799.04 38 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 92.04 1 3.3681 0.08067 . photo 5.04 1 0.1845 0.67192 Residuals 573.88 21 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 25.6 1 1.0452 0.3084 warm 2262.8 1 92.2793 < 2.2e-16 *** photo 1036.2 1 42.2555 1.403e-09 *** Residuals 3334.9 136 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 1362.4 1 10.2219 0.01513 * photo 1145.8 1 8.5968 0.02196 * Residuals 933.0 7 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 264.73 1 9.722 0.003834 ** photo 506.70 1 18.608 0.000144 *** Residuals 871.35 32 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 2028.26 1 44.701 2.158e-06 *** photo 76.41 1 1.684 0.2099 Residuals 862.11 19 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 1269.62 1 31.3571 1.76e-05 *** photo 317.40 1 7.8393 0.01106 * Residuals 809.78 20 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 37.7 1 0.5452 0.4620583 warm 2412.4 1 34.8806 5.066e-08 *** photo 1013.1 1 14.6486 0.0002282 *** Residuals 6777.9 98 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 1976.6 1 25.2187 8.971e-06 *** photo 402.8 1 5.1387 0.02836 * Residuals 3448.6 44 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 310.08 1 1.8102 0.2154 photo 56.37 1 0.3291 0.5820 Residuals 1370.35 8 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 9.4 1 0.2390 0.625773 warm 697.7 1 17.8189 4.591e-05 *** photo 370.1 1 9.4512 0.002584 ** Residuals 4972.5 127 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 0.66 1 0.0173 0.8971 photo 3.05 1 0.0793 0.7819 Residuals 615.94 16 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 426.51 1 6.1587 0.02317 * photo 113.90 1 1.6447 0.21595 Residuals 1246.57 18 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 676.1 1 3.7283 0.06856 . photo 717.2 1 3.9548 0.06133 . Residuals 3445.5 19 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 54.14 1 1.2225 0.2783 photo 23.87 1 0.5390 0.4690 Residuals 1240.03 28 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 0 warm 549.82 1 15.5969 0.0002936 *** photo 62.38 1 1.7694 0.1906292 Residuals 1480.58 42 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 94.2 1 3.6275 0.05915 . warm 50.9 1 1.9585 0.16417 photo 38.8 1 1.4947 0.22381 Residuals 3221.0 124 — Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 Anova Table (Type II tests)

Response: risk Sum Sq Df F value Pr(>F) chilling 5.38 1 1.0236 0.3140 warm 4.63 1 0.8804 0.3503 photo 9.20 1 1.7479 0.1890 Residuals 547.11 104

	Sum Sq	Df	F value	Pr(>F)
chilling	119.12	1	1.92	0.1682
warm	4883.47	1	78.90	0.0000
photo	1300.30	1	21.01	0.0000
Residuals	6684.85	108		
chilling1	0.62	1	0.01	0.9231
warm1	1742.33	1	26.35	0.0000
photo1	462.88	1	7.00	0.0095
Residuals1	6611.18	100		
chilling2	15.54	1	0.22	0.6426
warm2	269.90	1	3.78	0.0564
photo2	224.83	1	3.15	0.0809
Residuals2	4574.75	64		
chilling3		0		
warm3	1025.10	1	5.96	0.0193
photo3	198.55	1	1.15	0.2893
Residuals3	6709.50	39		
chilling4		0		
warm4	374.08	1	40.04	0.0001
photo4	126.75	1	13.57	0.0050
Residuals4	84.08	9		
chilling5	287.15	1	5.32	0.0227
warm5	1464.43	1	27.11	0.0000
photo5	617.15	1	11.43	0.0010
Residuals5	7183.30	133		
chilling6		0		
warm6	1383.03	1	18.88	0.0003
photo6	539.58	1	7.37	0.0134
Residuals6	1464.97	20		
chilling7	4.55	1	0.06	0.8142
warm7	1780.62	1	21.68	0.0000
photo7	1104.06	1	13.45	0.0004
Residuals7	10510.45	128		
chilling8		0		
warm8	941.67	1	14.26	0.0005
photo8	660.25	1	10.00	0.0029
Residuals8	2707.30	41		
chilling9	60.29	1	1.37	0.2468
warm9	722.34	1	16.36	0.0001
photo9	2.08	1	0.05	0.8287