

Table 1. Table of hypotheses and associated specific predictions, whether each was supported ('yes'; significant at $p < 0.05$), rejected ('no'; opposite trend significant at $p < 0.05$), or found insignificant ('n.s.'; no significant correlation), and display items showing the results. 'RP' and 'DP' refer to ring- and diffuse- porous species, respectively.

Hypotheses and Specific Predictions	SCBI		Harvard Forest		Results
	RP	DP	RP	DP	
Warmer early springs result in earlier stem growth and longer growing seasons					
Day of year at which 25% of growth is achieved (DOY_{25}) is negatively correlated with early spring T.	yes	yes	yes	yes	Figs. 3-5
Day of year at which 50% of growth is achieved (DOY_{50}) is negatively correlated with early spring T.	yes	yes	yes	yes	Figs. 4-5
Day of year at which 75% of growth is achieved (DOY_{75}) is negatively correlated with early spring T.	n.s.	yes	yes	yes	Figs. 4-5
Day of year of max growth rate ($DOY_{g_{max}}$) is negatively correlated with early spring T.	yes	yes	yes	yes	Fig. 4
Peak growing season length ($L_{PGS} = DOY_{75} - DOY_{25}$) is positively correlated with early spring T.	yes	yes	no	yes	Fig. 4
Maximum growth rates are independent of early spring temperatures.					
Max growth rate (g_{max}) is independent of early spring T.	n.s.	no (-)	no (+)	no (-)	Fig. 4
Annual stem growth responds positively to warmer spring temperatures.					
Annual growth (ΔDBH ; dendrobands) is positively correlated with early spring T.	n.s.	n.s.	yes	no	Fig. 4
On the centennial time scale, tree ring width (RW) is positively correlated with early spring T.	mixed ¹	mixed ²	n.s.	no ³	Fig. 6

¹ One of nine species analyzed had significant positive response to April T_{max} ; one had significant negative response to March T_{max}

² One of two species analyzed had significant positive response to April T_{max} , both had negative response to May T_{max}

³ One of the two species was negatively correlated with April T_{max} , and the other positively correlated with May T_{max} .

Table 2. Dominant ring- and diffuse-porous species at the Smithsonian Conservation Biology Institute (SCBI) and Harvard Forest, along with sample sizes analyzed here.

site	xylem porosity	species	species code	dendrometer bands		tree cores	
				n trees	n tree-years	n cores	date range
SCBI	ring	<i>Carya cordiformis</i>	CACO	0	0	18	1917-2009
		<i>Carya glabra</i>	CAGL	0	0	39	1901-2009
		<i>Carya ovalis</i>	CAOVL	0	0	24	1896-2009
		<i>Carya tomentosa</i>	CATO	0	0	17	1926-2009
		<i>Fraxinus americana</i>	FRAM	0	0	69	1910-2009
		<i>Quercus alba</i>	QURU	34	197	66	1904-2009
		<i>Quercus montana</i>	QUPR	0	0	67	1893-2009
		<i>Quercus rubra</i>	QUAL	35	229	71	1870-2009
		<i>Quercus velutina</i>	QUVE	0	0	83	1902-2009
	diffuse	<i>Fagus grandifolia</i>	FAGR	13	89	81	1932-2009
		<i>Liriodendron tulipifera</i>	LITU	41	354	109	1920-2009
Harvard	ring	<i>Fraxinus americana</i>	FRAM	9	27	0	1901-2014
		<i>Quercus alba</i>	QURU	118	575	179	
		<i>Quercus velutina</i>	QUVE	11	50	0	
	diffuse	<i>Fagus grandifolia</i>	FAGR	8	45	0	1952-2013
		<i>Betula lenta</i>	BELE	8	44	0	
		<i>Betula populifolia</i>	BEPO	5	24	0	
		<i>Betula papyrifera</i>	BEPA	3	13	0	
		<i>Betula alleghaniensis</i>	BEAL	21	90	44	
		<i>Prunus serotina</i>	PRSE	9	37	0	
		<i>Acer rubrum</i>	ACRU	144	669	59	
		<i>Acer pensylvanicum</i>	ACPE	4	16	0	

Table 3. Summary of parameters describing the phenology and rate of growth for ring- and diffuse- porous species at SCBI and Harvard Forest.

	SCBI		Harvard Forest	
	ring	diffuse	ring	diffuse
critical T_{max} window	3/22-4/9	2/19-5/21	4/2-5/7	3/19-5/7
DOY_{25}	123 (May 4)	154 (June 4)	132 (May 15)	164 (June 14)
DOY_{50}	152 (June 2)	172 (June 22)	159 (June 9)	182 (July 2)
DOY_{75}	180 (June 30)	190 (July 9)	186 (July 6)	199 (July 19)
$DOY_{g_{max}}$	152 (June 2)	173 (June 23)	161 (June 11)	183 (July 3)
g_{max} (mm/day)	0.046	0.061	0.03	0.025
L_{pgs}	56.5	35.8	54.5	35.1
ΔDBH (mm/yr)	4.7	3.6	3.1	1.4