

hypotheses and specific predictions	frequency observed
<i>How do precipitation (P) and temperature (T) jointly shape tree growth?</i>	
<b>Multi-month drought limits growth, but P responses are nonlinear.</b>	
The time window over which P influences growth is usually $\geq 3$ months.	7 / 10 sites
Growth responses to P are predominantly positive,	34 / ?? Species-site combinations
...but positive responses decelerate or decline at high P.	32 / 34 species-site combinations with positive first-order terms
<b>Growth responses to T are predominantly negative, particularly at high T.</b>	
The time window over which T influences growth rarely exceeds 3 months.	9 / 10 sites
Annual growth responds more strongly to $T_{max}$ or PET than to $T_{min}$ .	8 / 10 sites
**Growth responses to T are predominantly negative, particularly at higher T.**	
However, there are cases where growth increases under warmer T.	
<b>Climate sensitivity varies with DBH.</b>	<b>44 percent of models</b>
Water and DBH have an interactive effect on growth.	X percent of models
Temperature and DBH have an interactive effect on growth.	X percent of models
<i>How does growth rate vary with stem diameter (DBH)?</i>	
<b>Growth rate, by any metric, varies nonlinearly with DBH.</b>	<b>X percent of models</b>
Ring width increment (RW) declines with DBH for trees established in the open,	
...but increases with DBH for trees established in the understory.	
Basal area increment (BAI) increases to a peak at intermediate DBH and then declines.	
Biomass increment ( $\Delta AGB$ ) increases to a peak at intermediate DBH and then declines.	98 percent of species-site combinations
<i>How have growth rates changed through time?</i>	
<b>Growth rates of most forest tree populations have declined through time due to demographic and successional changes.</b>	<b>90 percent of species-site combinations</b>
In secondary or disturbed forests, growth rates of most species have declined.	XX / XX species at 7 sites
In old-growth forests, growth rates of some species has declined,	XX / XX species at 3 sites
...whereas others have increased.	3 / XX species at 3 sites

site code	site name	location	1950 - 2019 climate			vegetation type(s)	n species	n cores	original publication(s)
			July $T_{mean}$	Jan $T_{mean}$	$MAP$				
BCNM	Barro Colorado Nature Monument	Panama	26.6	25.5	2627	BD, BE	3	84	Alfaro-Sánchez, Muller-Landau, Wright, and Camarero 2017
HKK	Huai Kha Khaeng	Thailand	25.7	22.4	1428	BD, BE	4	470	Vlam, Baker, Bunyavejchewin, and Zuidema 2014
SCBI	Smithsonian Conservation Biology Institute	Virginia, USA	24.3	0.9	1018	BD, NE	14	704	Helcoski et al. 2019; Gonzalez-Akre et al. 2020
LDW	Lilly Dickey Woods	Indiana, USA	24.0	-2.2	1099	BD	6	170	Maxwell, Harley, and Robeson 2016
HF	Harvard Forest	Massachusetts, USA	21.6	-5.1	1104	BD, NE	4	366	Alexander et al. 2019; Finzi et al. 2020
ZOF	Žofín Forest Dynamics Plot	Czech Republic	18.1	-2.0	731	NE, BD	4	2059	Šamonil et al. 2013; Kašpar, Tumaier, Vašíčková, and Šamonil, 2021
NIO	Niobrara	Nebraska, USA	23.4	-6.5	520	BD	1	84	Bumann et al. 2019
LT	Little Tesuque	New Mexico, USA	16.2	-3.1	608	NE	2	34	
CB	Cedar Breaks	Utah, USA	13.8	-6.2	842	NE, BD	7	187	Birch et al. 2020a-d
SC	Scotty Creek	Northwest Territories, Canada	16.5	-24.7	373	NE	1	443	Sniderhan and Baltzer 2016