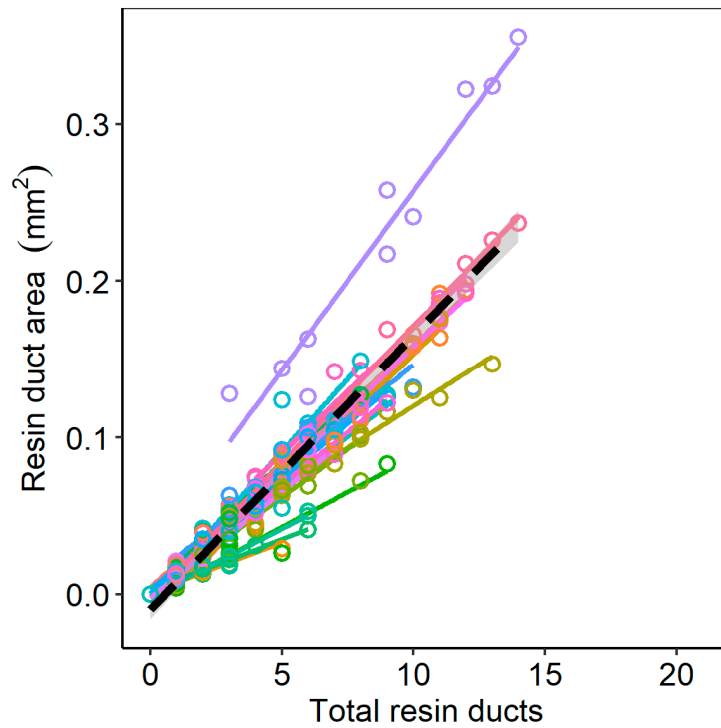**Figure S1.** Relationship among total resin duct counts and total cross-sectional area (mm^2) of resin ducts for each of the 10 most-recent annual xylem-rings. The different colored symbols and solid lines correspond to individual trees; the dashed line shows the population line of fit with shading indicating the 95% confidence interval. The data presented are untransformed.
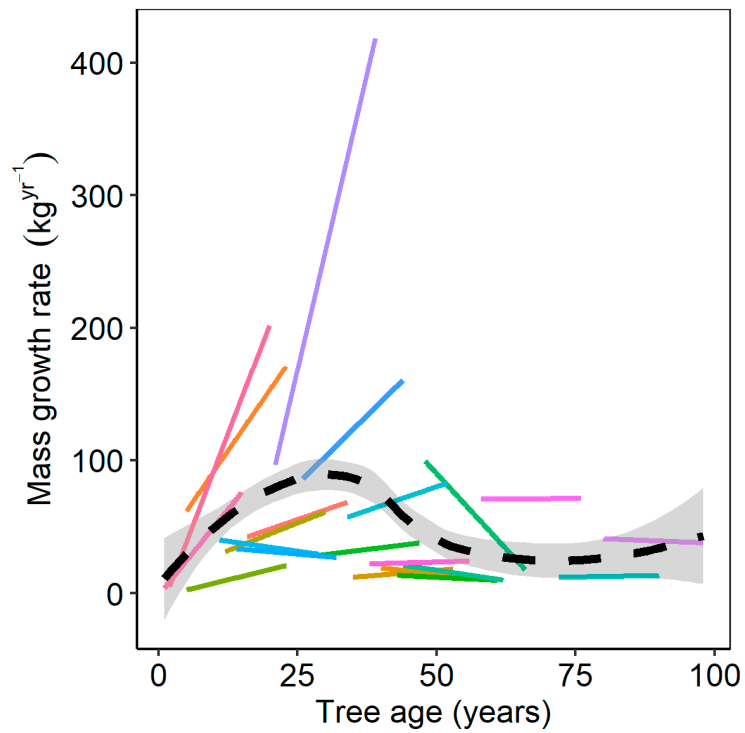
Figure S2. Annual aboveground biomass growth rate (kg/year)—estimated by applying allometric scaling to annually resolved tree diameter data—as a function of tree age. The dashed line, fit via loess smoothing, illustrates the population-level rate; different shaded lines indicate annual biomass growth rates of individual trees over time.
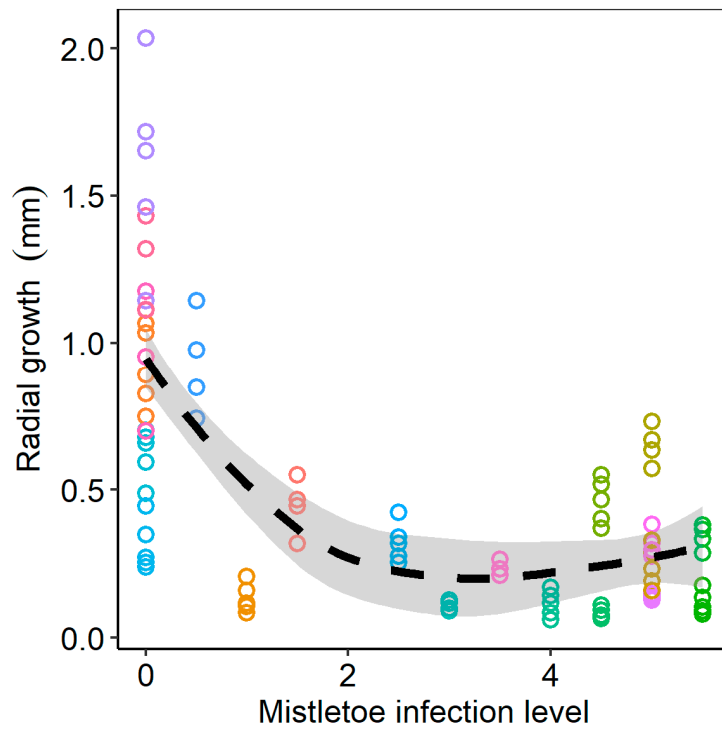
Figure S3. Radial-growth (mm^{yr-1}) of the five most-recent annual rings as a function of mistletoe infection level. Symbol colors indicate tree identity, the dashed line is a population fit via loess smoothing. The date of initial infection is unknown for these trees, hence the restriction of growth responses to only recent annual rings.

Table S1. Specified linear models, data transformations used, and analytical approach employed

Section	Model*	Transformations used	Analytical approach
3.1	resin duct area ~ resin duct count + (1|Tree_ID)	sqrt(resin duct area)	linear mixed model
3.2	resin duct number ~ radial growth + dbh + tree age + (1|Tree_ID)	log(resin duct number)	linear mixed model
	resin duct area ~ radial growth + dbh + tree age + (1|Tree_ID)	sqrt(resin duct area)	linear mixed model
3.3	radial growth ~ tree age + dbh + (1|Tree_ID)	log(radial growth)	linear mixed model
	basal area increment ~ tree age + (1|Tree_ID)	log (basal area increment)	linear mixed model
3.4	mistletoe infection level ~ tree age + dbh		permutational ANOVA
	mistletoe infected (1/0) ~ tree age		logistic regression
3.5	resin duct number ~ radial growth + mistletoe infection level	log(resin duct number), log(radial growth)	Structural equation model
	radial growth ~ tree age + mistletoe infection level	log(radial growth), sqrt(tree age)	
	mistletoe infection level ~ tree age	sqrt(tree age)	
	resin duct area ~ radial growth + mistletoe infection level	sqrt(resin duct area), log(radial growth)	Structural equation model
	radial growth ~ tree age + mistletoe infection level	log(radial growth), sqrt(tree age)	
	mistletoe infection level ~ tree age	sqrt(tree age)	

*parenthetical terms indicate random effects

Table S2. Linear mixed-model for the influence of tree properties on the number and total area of resin ducts in annual growth-rings*

Response	Factor	Estimate	SE	t	P	$m.R^{2\dagger}$	$c.R^{2\dagger}$
Resin duct number	Intercept	1.7478	0.1601	10.92	< 0.0001	0.34	0.40
	Radial growth	0.5103	0.1100	4.64	< 0.0002		
	Tree age	-0.0066	0.0033	-1.98	0.0534		
	Tree diameter	-0.0030	0.0023	-1.28	0.2071		
Resin duct area	Intercept	0.1940	0.0352	5.51	< 0.0001	0.38	0.48
	Radial growth	0.1149	0.0234	4.90	< 0.0001		
	Tree age	-0.0011	0.0007	-1.61	0.1160		
	Tree diameter	0.0006	0.0005	1.12	0.2750		

*Annual rings of each tree were 'nested' within a mixed-effect model where tree identity was a random effect.

[†] "m.R^2" = marginal R^2 value, or the variation explained by the fixed effects; "c.R^2" = conditional R^2 value, or the variation explained by the combination of the random (tree identity) and fixed effects.

Table S3. Linear mixed-model for the influence of tree properties on annual radial growth and annual basal area increment (BAI)*

Response	Factor	Estimate	SE	t	P	$m.R^{2\dagger}$	$c.R^{2\dagger}$
Annual radial growth	Intercept	0.2726	0.1215	2.244	0.0293	0.69	0.91
	Tree age	-0.0368	0.0031	-11.968	< 0.0001		
	Tree diameter	0.0067	0.0022	2.996	0.0030		
Annual BAI	Intercept	-1.1094	0.1333	-8.320	<0.0001	0.83	0.95
	Tree age	-0.0546	0.0023	-23.740	<0.0001		

* Annual radial growth and BAI values were analyzed with a mixed-effect model where tree identity was a random effect.

† "m.R^2" = marginal R^2 value, or the variation explained by the fixed effects; "c.R^2" = conditional R^2 value, or the variation explained by the combination of the random (tree

Table S4. Permutational ANOVA results testing for the influence of tree age on mistletoe infection level

Factor	DF	SS	MSE	Iterations	P
Tree age	1	25.90	25.90	2944	0.0330
Residuals	19	72.77	3.83		

Table S5. Logistic regression results linking
tree age to mistletoe infection category (y/n)

Factor	Estimate	SE	Z	P
Intercept	-2.744	1.654	-1.66	0.0971
Tree age	0.091	0.044	2.07	0.0384

Table S6. Structural equation model results

SEM	LHS variable	RHS variable	Std. coefficient	S.E.	Z	P	CI (lower)	CI (upper)
SEM resin duct #	Resin duct number	Tree radial growth	1.01	0.09	10.82	0.0000	0.83	1.19
	Resin duct number	Mistletoe infection level	0.39	0.18	2.19	0.0290	0.04	0.74
	Tree radial growth	Tree age	-0.59	0.12	-4.75	0.0000	-0.83	-0.35
	Tree radial growth	Mistletoe infection level	-0.31	0.15	-2.06	0.0400	-0.60	-0.01
	Mistletoe infection level	Tree age	0.52	0.14	3.86	0.0000	0.26	0.79
	Resin duct number	Indirect effect age	-0.31	0.17	-1.84	0.0660	-0.64	0.02
	Resin duct number	Indirect effect mistletoe	-0.60	0.11	-5.67	0.0000	-0.80	-0.39
SEM resin duct area	Total resin duct area	Tree radial growth	1.04	0.07	15.86	0.0000	0.92	1.17
	Total resin duct area	Mistletoe infection level	0.31	0.12	2.59	0.0100	0.08	0.55
	Tree radial growth	Tree age	-0.59	0.12	-4.75	0.0000	-0.83	-0.35
	Tree radial growth	Mistletoe infection level	-0.31	0.15	-2.06	0.0400	-0.60	-0.01
	Mistletoe infection level	Tree age	0.52	0.14	3.86	0.0000	0.26	0.79
	Total resin duct area	Indirect effect age	-0.32	0.17	-1.91	0.0560	-0.65	0.01
	Total resin duct area	Indirect effect mistletoe	-0.62	0.11	-5.62	0.0000	-0.83	-0.40

Std. = Standard; shaded cells indicate 'indirect effect' pathways moderated by a third variable.