Supplementary Materials

Table S1. Zero-inflated models' summary on the relationship between broadleaf species admixture and natural regeneration density of silver fir across climatic gradient and different levels of the normalized TBA.

Predictors	Density_all_ha		
	Incidence Rate Ratios	CI	p
Count Model			
(Intercept)	50129.27 ***	10072.58 – 249483.72	**<0.001**
Martonne	1.00	0.97 – 1.02	0.761
Admixture broad	0.00 ***	0.00 – 0.16	**0.005**
TBA [sqrt]	0.32 **	0.13 – 0.82	**0.017**
Martonne Ã— Admixture broad	1.10 **	1.02 – 1.19	**0.016**
(Intercept)	2.47	2.00 – 3.25	
Zero-Inflated Model			
Martonne	0.95 ***	0.93 – 0.97	**<0.001**
Random Effects			
σ^2		0.75	
$\tau_{00\ Localization}$		0.31	
ICC		0.30	
$N_{\ Localization}$		4	
Observations		93	
Marginal R^2 / Conditional R^2		0.163 / 0.411	

** p<0.1; ** p<0.05; *** p<0.01.*

Table S2. Zero-inflated models' summary on the relationship between broadleaf species admixture and natural regeneration density of silver fir across climatic gradient and different levels of the normalized TBA.

	Density_fir_ha		
Predictors	***Incidence Rate Ratios***	***CI***	*p*
(Intercept)	58036.42 ***	23542.65 – 143054.76	**<0.001**
Martonne	0.98 ***	0.97 – 0.99	**0.004**
Admixture broad	0.00 ***	0.00 – 0.02	**0.001**
Martonne x Admixture broad	1.18 ***	1.07 – 1.29	**0.001**
Zero-Inflated Model			
(Intercept)	0.17 ***	0.05 – 0.62	**0.007**
Martonne	1.00	0.98 – 1.02	0.867
Random Effects			
σ^2	0.88		
$\tau_{00\ Localization}$	0.00		
$N_{\ Localization}$	4		
Observations	93		
Marginal R^2	0.197		

** p<0.1; ** p<0.05; *** p<0.01.*

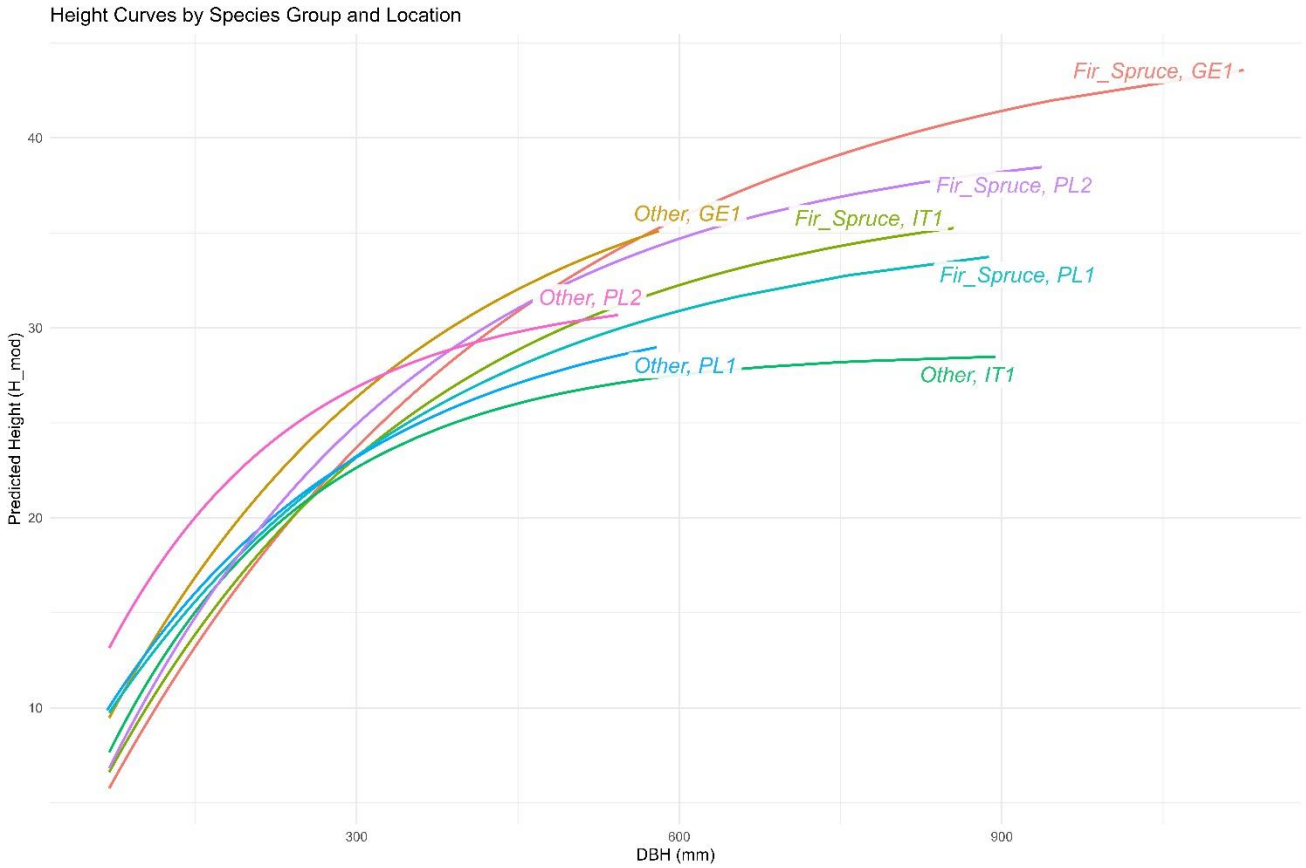


Figure S1. Height curves for selected species groups across four sites.



Figure S2. Even-aged, monospecific stand (left) and uneven-aged, mixed stand (right).