

## Appendices

Table A1. Logistic regression models for the survival probabilities of individual tree species. Shown are the regression coefficients (Coeff.), standard errors (SE) and P values (P).

Tree species	Predictor	Intercept	relbai	relbai'	log(DBH)	site	relbai × site	relbai' × site
<i>P. abies</i>	Coeff.	4.647	0.440	0.228	-0.384			
	SE	0.986	0.130	0.153	0.110			
	p	<0.001	<0.001	0.137	<0.001			
<i>T. baccata</i>	Coeff.	-10.095	1.382	1.363	3.833			
	SE	5.825	0.535	1.256	1.059			
	p	0.083	0.010	0.278	<0.001			
<i>F. sylvatica</i>	Coeff.	10.009	1.743	-0.417				
	SE	0.953	0.185	0.272				
	p	<0.001	<0.001	0.124				
<i>T. cordata</i>	Coeff.	-0.847	1.022	-0.526	1.591	-0.940		
	SE	1.965	0.218	0.250	0.308	0.289		
	p	0.666	<0.001	0.036	<0.001	0.001		
<i>C. betulus</i>	Coeff.	1.827	0.207	2.875		3.454	0.436	-3.133
	SE	2.697	0.501	1.606		3.145	0.592	1.651
	p	0.498	0.680	0.073		0.272	0.461	0.058
<i>F. excelsior</i>	Coeff.	5.413	2.418	-2.034	1.171	-8.713	-2.085	3.872
	SE	2.579	0.430	0.708	0.315	3.233	0.724	1.387
	p	0.036	<0.001	0.004	<0.001	0.007	0.004	0.005
<i>Q. robur</i>	Coeff.	-0.465	1.801	-0.431	2.075	-2.320		
	SE	1.716	0.224	0.315	0.230	0.262		
	p	0.787	<0.001	0.171	<0.001	<0.001		
<i>Betula</i> spp.	Coeff.	1.073	0.813	-0.113	0.623			
	SE	2.093	0.309	0.361	0.230			
	p	0.608	0.009	0.755	0.007			
<i>A. glutinosa</i>	Coeff.	-1.918	1.217	-0.260	1.105	-0.960		
	SE	3.111	0.337	0.575	0.517	0.561		
	p	0.538	<0.001	0.652	0.033	0.087		

Table A2. Detailed site information of the analysed Swiss forest reserves (Swiss Federal Office of Topography 2004).

Forest reserve	Bois de Chênes	Weidwald	Fürstenhalde	Unterwilerberg
Altitude (m a.s.l.)	450–660	600–660	500	450–500
Coordinates	46°26'17"N 6°13'33"E	47°24'47"N 7°59'31"E	47°33'33"N 8°26'59"E	47°28'47"N 8°16'11"E
Annual precipitation sum (mm)	≈ 1150	≈ 1160	≈ 910	≈ 1060
Mean annual temperature (°C)	≈ 8.9	≈ 8.2	≈ 8.3	≈ 8.3
Geology	Lateral moraine	Jura	Upper SWM <sup>1</sup> Interglacial deposits	Lower SWM <sup>1</sup> Jura
Soil <sup>2</sup>	Cambisol	Rendzic Leptosol	Cambisol	Cambisol Rendzic Leptosol
Aspect	–	S	N	N
Permanent plot area <sup>3</sup> (ha)	≈ 4	≈ 2	0.70	0.27
Inventory campaign	1974 1984 1995	1976 1987 1998	1971 1984 1994	1971 1984 1994
Number of sample trees	2228	2046	424	263

Notes: Geology: <sup>1</sup>SWM = Sweetwater molasse; <sup>2</sup>FAO-classification (FAO 1998); <sup>3</sup>estimates resp. measurements of the permanent plot area.

## References

- FAO 1998. World reference base for soil resources. – FAO UN, Rome.  
 Swiss Federal Office of Topography 2004. Atlas of Switzerland 2.0.3.