

Online resource 2: Variable importance for projection (VIP) values for the investigated soil and site variables. VIP values > 0.8 were selected as significant. Two stages of significant variable selection were used. After each stage variables <0.8 were removed from the calculation (Wold et al. 2001; Chong and Jun 2005).

	C%	Min. Depth	ECEC	Org. Thick ness	Moist%	NH ₄ ⁺	EC	pH	BD	C:N	N dep.	N status	Prec.	Temp	Stand age	C stock
Organic																
Stage 1	0.39	x	x	1.62	0.44	0	0.42	0.77	0.53	0.80	0.85	1.28	0.06	1.35	0.34	2
Stage 2				1.09						0.62	0.64	0.93	0.97			1.44
Mineral																
Stage 1	1.48	0.79	0.74	0.32	1.26	0	0.58	0.79	1.04	0.8	0.29	1.04	0.85	1.28	1.04	1.48
Stage 2	1.40	0.76			1.05				0.91	0.75		0.74	0.87	0.97	0.98	1.15

Note: Abbreviated variable names explained: C concentration (C%), depth of the mineral soil layer (Min. Depth), effective cation exchange capacity (ECEC), thickness of the organic layer (Org. Thickness), moisture content (Moist), NH₄⁺ concentration (NH₄⁺),

electrical conductivity (EC), bulk density (BD), N deposition level (N dep.), N-status level (N status), mean annual precipitation (Prec.), mean annual temperature (Temp.) and forest stand age (Stand age).

