Supplementary Material to:

Understory vegetation dynamics in non-native Douglas fir forests after management abandonment – a case study in two strict forest reserves in south-west Germany

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Table S1. Frequency of occurrence (F) in % and mean cover values and standard error in % (mCV±SE) for all species surveyed on the 400 m² subplots in the core areas of the three strict forest reserves Grünberg, Eselskopf and Adelsberg for two observation times.

Figure S1. Impressions from the core areas of the strict forest reserves (SFRs) dominated by Douglas fir.

Table S1: Frequency of occurrence (F) in % and mean cover values and standard error in % (mCV±SE) for all species surveyed in the 400 m² subplots in the core areas of the three strict forest reserves Grünberg (GB), Eselskopf (EK, both characterized by Douglas fir (DF)) and Adelsberg (AB, dominated by native tree species (NAT) for two survey times. Species were grouped into the tree layer and into the field layer comprising the shrub layer (all woody species > 0.5 m < 5 m), the herb layer (all herbaceous species and woody species ≤ 0.5 m) and the moss layer (M, all ground dwelling bryophytes). Species in the field layer are ordered according to their temporal dynamics. Significant higher cover values between observations are indicated in bold according to Wilcoxon signed rank test. A significant increase or decrease was also assumed with frequency changes by at least 20 %. A significant increase by cover value and/or frequency is indicated **in blue**, a significant decrease **in orange**. Given are the Ellenberg Indicator values (EIV) for light (L), temperature (T), continentality (C), moisture (M), soil reaction (R) and nutrients (N) according to ELLENBERG et al. [55] and SIMMEL et al. [59] for N-values of bryophytes, and the association of field layer species to broad plant communities (Com) according to ELLENBERG et al. [59], OBERDORFER [61] and NEBEL & PHILIPPI [62]. Communities comprise deciduous forests of the class *Querco-Fagetea* (QF), coniferous forests (CF) including the class *Vaccinio-Piceetea* (VP), communities of grasslands and heathlands (GH) including reed communities, communities of edges and clearings (Clear), communities of disturbed sites (Dist) and shrub vegetation represented by *Rubus fruticosus* agg. X = no community preference, often occurring in different communities, n.d. = community preference not defined due to non-native origin of species. For more details see text. FA gives the forest affinity according to SCHMIDT et al. [60] with 1.1 = species of closed forests, 1.2 = species of edges and clearings, 2.1 = species of forests and open habitats, 2.2. = species predominantly of open habitats, O = open habitat species (T = tree, S = shrub, H = herb, M = moss). nv = no value, ~ indicating changing water tables, = indicating temporal flooding. For references see main text.

	Com	FA	EIV						Grünberg (GB-DF)				Eselskopf (EK-DF)				Adelsberg (AB-DF)			
			L	T	C	M	R	N	n =13				n = 14				n = 29			
									2005		2017		2005		2017		2001		2016	
									F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE
Tree layer (> 5 m height)																				
Fagus sylvatica									100	50.1±3.6	100	**75.0±5.6**	50	1.3±0.4	64	3.2±1.1	72	17.0±3.2	86	31.0±4.1
Pseudotsuga menziesii									100	**48.6±4.5**	100	35.9±4.0	100	67.6±3.3	100	69.1±3.3	.	.	.	.
Pinus sylvestris									69	4.3±1.5	54	4.8±1.8	.	.	.	.	.	.	.	.
Picea abies									23	0.7±0.4	38	0.9±0.4	29	1.8±1.1	36	1.8±1.4	.	.	.	.
Carpinus betulus									.	.	.	.	43	1.3±0.5	57	2.4±0.8	45	5.0±1.6	66	9.4±2.0
Quercus petraea									.	.	.	.	21	0.4±0.2	7	0.1±0.1	86	31.5±3.6	97	40.5±4.7
Betula pendula									.	.	.	.	21	0.4±0.2	14	0.3±0.2	.	.	.	.
Salix caprea									.	.	.	.	21	0.4±0.2	7	0.1±0.1	.	.	.	.
Sorbus aucuparia									.	.	.	.	21	0.4±0.3	7	0.2±0.2	.	.	.	.
Corylus avellana									.	.	.	.	7	1.0±1.0	50	1.5±0.5	.	.	.	.
Acer pseudoplatanus									.	.	.	.	7	0.2±0.2	7	0.4±0.3	.	.	.	.
Tilia cordata									.	.	.	.	.	.	.	.	93	28.0±3.6	93	29.0±3.3

Table S1. Continued

	Com	FA	EIV						Grünberg (GB-DF)				Eselskopf (EK-DF)				Adelsberg (AB-NAT)			
			L	T	C	M	R	N	n = 13				n = 14				n = 29			
									2005		2017		2005		2017		2001		2016	
Field layer									F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE
Significant increase in at least one SFR																				
Picea abies	VP	T2.1	5	3	6	x	x	x	100	8.6±1.6	**100**	**15.4±3.2**	64	2.3±1.0	64	0.8±0.2	3	+	10	0.2±0.1
Atrichum undulatum (M)	QF	M2.1	6	x	5	6	4	5	69	0.2±0.1	85	0.7±0.1	71	0.9±0.2	79	1.0±0.3	.	.	**24**	**0.2±0.1**
Eurhynchium striatum (M)	x	M1.1	5	6	3	5	6	5	15	+	62	0.4±0.1	36	0.3±0.2	93	7.6±2.3	.	.	.	.
Brachythecium rutabulum (M)	x	M2.1	5	x	5	4	x	6	.	.	23	0.1±0.1	86	0.9±0.2	.	.	14	+	3	+
Rhytidiadelphus loreus (M)	CF	M1.1	4	3	4	6	3	2	.	.	.	.	50	0.4±0.2	71	2.7±1.1	.	.	.	.
Quercus petraea	QF	T2.1	6	6	2	5	x	x	.	.	.	.	43	0.6±0.3	50	0.7±0.3	93	0.4±0.0	**100**	**1.9±0.6**
Plagiomnium affine (M)	CF	M2.1	5	4	5	5	5	4	.	.	.	.	43	1.2±0.5	86	3.0±1.2	.	.	.	.
Plagiomnium undulatum (M)	x	M2.1	4	3	5	6	6	5	.	.	.	.	14	0.1±0.1	36	0.4±0.2	.	.	.	.
Anemone nemorosa	QF	H2.1	x	x	3	5	x	x	.	.	.	.	.	.	.	.	76	0.1±0.0	**97**	**0.8±0.1**
Moehringia trinervia	QF	H1.1	4	5	3	5	6	7	.	.	.	.	.	.	43	0.1±0.0	72	0.2±0.0	62	0.3±0.0
Thuidium tamariscinum (M)	x	M2.1	4	4	4	6	4	4	.	.	23	0.1±0.1	.	.	57	2.0±1.1	10	+	10	0.1±0.0
Taraxacum officinale agg.	x	H2.1	7	x	X	5	x	8	.	.	.	.	.	.	29	+	.	.	.	.
Plagiothecium laetum (M)	x	M2.1	4	3	6	4	2	4	.	.	8	+	.	.	43	0.2±0.1	.	.	3	+
Rhytidiadelphus triquetrus (M)	x	M2.1	7	3	6	4	5	3	.	.	.	.	.	.	36	0.6±0.3	.	.	.	.
Scleropodium purum (M)	CF	M2.1	6	4	5	4	5	3	.	.	.	.	.	.	29	1.8±1.1	.	.	.	.
Significant decrease in at least one SFR																				
Pseudotsuga menziesii	nd	T1.1	nv	nv	nv	nv	nv	nv	**100**	**11.7±1.9**	92	1.2±0.2	**100**	**20.7±3.4**	71	4.6±2.8	.	.	.	.
Rubus idaeus	x	S2.1	7		X	x	x	6	77	0.8±0.2	.	.	36	0.2±0.1	.	.	.	.	.	.
Polytrichum formosum (M)	x	M2.1	4	2	5	6	2	3	77	1.2±0.3	85	0.5±0.1	100	3.4±0.7	71	1.0±0.4	59	0.8±0.2	45	0.5±0.1
Oxalis acetosella	x	H1.1	1	x	3	5	4	6	62	0.4±0.1	15	+	36	0.2±0.2	50	0.3±0.1	17	0.1±0.0	3	+
Pinus sylvestris	x	T2.1	7	x	7	x	x	x	54	0.7±0.3	.	.	.	.	.	.	14	+	.	.
Poa nemoralis	QF	H2.1	5	x	5	5	5	4	54	0.4±0.2	.	.	43	0.4±0.2	29	0.1±0.0	24	0.1±0.1	10	0.1±0.0
Dryopteris filix-mas	QF	H1.1	3	x	3	5	5	6	46	0.1±0.1	.	.	100	1.0±0.1	57	0.2±0.1	10	+	14	0.1±0.0
Vaccinium myrtillus	x	H2.1	5	x	5	x	2	3	46	0.3±0.1	.	.	.	.	.	.	7	0.1±0.1	10	0.6±0.5
Dicranum scoparium (M)	VP	M2.1	5	x	5	4	4	2	46	0.2±0.1	15	0.1±0.1	100	2.8±0.7	57	0.9±0.5	**76**	**1.0±0.3**	31	0.2±0.0
Cytisus scoparius	QF	S2.2	8	5	2	4	3	4	38	0.1±0.1	.	.	21	+	.	.	.	.	3	+
Viola riviniana	QF	H2.1	5	x	3	4	4	x	38	+	.	.	.	.	.	.	3	+	.	.

Table S1. Continued

	Com	FA	EIV						Grünberg (GB-DF)				Eselskopf (EK-DF)				Adelsberg (AB-NAT)			
			L	T	C	M	R	N	n = 13				n = 14				n = 29			
									2005		2017		2005		2017		2001		2016	
									F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE
Carex pilulifera	GH	H2.1	5	x	2	5~	3	3	31	0.1±0.0	8	+	.	.	.	.	7	0.1±0.0	10	0.1±0.0
Gymnocarpium dryopteris	QF	H1.1	3	4	5	6	4	5	31	0.1±0.1	.	.	7	+	.	.	.	.	.	.
Mycelis muralis	Dist	H2.1	4	6	2	5	x	6	31	+	.	.	.	.	.	.	38	0.1±0.0	17	+
Epilobium angustifolium	Clear	H1.2	8	x	5	5	5	8	23	+	.	.	21	0.1±0.0	.	.	.	.	.	.
Hypericum pulchrum	QF	H2.1	4	6	2	5	3	2	23	+	.	.	71	0.3±0.1	36	0.1±0.0	.	.	.	.
Epilobium parviflorum	GH	O	7	5	3	9=	8	6	15	+	.	.	57	0.2±0.1	.	.	.	.	.	.
Hylocomium splendens (M)	CF	M2.1	6	3	6	4	5	2	15	+	.	.	79	1.6±0.8	57	2.6±1.5	.	.	7	+
Athyrium filix-femina	x	H2.1	3	x	3	7	x	6	8	+	.	.	29	0.1±0.1	.	.	.	.	.	.
Luzula luzuloides	QF	H2.1	4	x	4	5	3	4	8	+	.	.	21	0.1±0.0	14	+	24	0.1±0.0	.	.
Teucrium scorodonia	QF	H2.1	6	5	2	4	2	3	.	.	.	.	93	1.3±0.2	57	0.2±0.1	.	.	.	.
Carpinus betulus	QF	T1.1	4	6	4	x	x	x	.	.	.	.	86	7.2±3.0	50	5.1±3.1	**55**	**2.3±0.7**	59	0.8±0.3
Sambucus racemosa	Clear	S2.1	6	4	4	5	5	8	.	.	.	.	71	0.2±0.1	.	.	.	.	.	.
Senecio ovatus	Clear	H1.2	7	x	4	5	x	8	.	.	.	.	71	0.3±0.1	.	.	.	.	.	.
Deschampsia flexuosa	x	H2.1	6	x	2	x	2	3	.	.	.	.	64	1.0±0.4	29	0.2±0.1	10	0.3±0.2	10	0.3±0.2
Dactylis polygama	QF	H1.1	5	6	4	5	6	5	.	.	.	.	36	0.1±0.1	.	.	.	.	.	.
Impatiens noli-tangere	QF	H1.1	4	5	5	7	7	6	.	.	.	.	29	0.1±0.0	.	.	.	.	.	.
Quercus robur	QF	T2.1	7	6	6	x	x	x	.	.	.	.	29	0.2±0.1	.	.	.	.	.	.
Lophocolea bidentata (M)	x	M2.1	7	3	5	6	5	3	.	.	.	.	29	0.1±0.1	.	.	.	.	.	.
Urtica dioica	Dist	H2.1	x	x	x	6	7	9	.	.	.	.	21	+	.	.	7	0.2±0.2	3	+
Plagiothecium denticulatum (M)	CF	M2.1	5	x	5	4	5	5	.	.	.	.	21	0.1±0.0	.	.	10	+	.	.
Dicranum montanum	x	M2.1	6	3	6	5	2	3	.	.	.	.	.	.	.	.	21	+	.	.
Contrary development in significant changes across reserves																				
Rubus fruticosus agg.	Shrub	S2.1	nv	nv	nv	nv	nv	nv	69	1.5±0.8	46	1.2±0.6	100	3.2±0.5	93	1.6±0.5	38	1.7±1.4	**52**	**10.4±3.7**
Dryopteris carthusiana	x	H2.1	5	x	3	x	4	3	54	0.2±0.1	.	.	57	0.3±0.1	79	0.3±0.1	52	0.1±0.0	21	0.1±0.0
Hypnum cupressiforme var. *cupressiforme* (M)	x	M2.1	5	x	5	4	4	4	54	0.1±0.0	92	0.5±0.0	100	4.1±1.1	93	0.5±0.1	**93**	**2.8±0.7**	79	0.4±0.0
Dryopteris dilatata	x	H2.1	4	x	3	6	x	7	46	0.2±0.1	.	.	100	1.4±0.2	57	0.3±0.1	.	.	**41**	**0.4±0.1**
Lost across SFR																				
Larix decidua	VP	T1.1	8	x	6	4	x	3	15	0.1±0.1	.	.	.	.	.	.	.	.	.	.

Table A1. Continued

	Com	FA	EIV						Grünberg (GB-DF)				Eselskopf (EK-DF)				Adelsberg (AB-NAT)			
			L	T	C	M	R	N			n = 13				n = 14				n = 29	
										2005	2017			2005	2017			2001	2016	
									F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE
Anthoxanthum odoratum	x	H2.1	x	x	x	x	5	x	15	+	.	.	.	.	.	.	.	.	.	.
Stellaria media	Dist	H2.2	6	x	x	x	7	8	8	+	.	.	7	+	.	.	.	.	.	.
Diplophyllum albicans (M)	x	M2.1	4	x	4	4	2	1	8	+	.	.	.	.	.	.	.	.	.	.
Rhizomnium punctatum (M)	CF	M1.1	3	3	4	6	4	4	8	+	.	.	.	.	.	.	7	+	.	.
Holcus lanatus	GH	H2.2	7	6	3	6	x	5	.	.	.	.	14	+	.	.	.	.	.	.
Rosa canina	QF	S2.1	8	5	3	4	x	x	.	.	.	.	14	+	.	.	.	.	.	.
Stellaria holostea	QF	H1.1	5	6	3	5	6	5	.	.	.	.	14	0.1±0.0	.	.	.	.	.	.
Cirsium vulgare	Dist	H2.2	8	5	3	5	7	8	.	.	.	.	7	+	.	.	.	.	.	.
Fragaria vesca	Clear	H2.1	7	x	5	5	x	6	.	.	.	.	7	+	.	.	.	.	.	.
Geranium robertianum	Dist	H2.1	5	x	3	x	x	7	.	.	.	.	7	+	.	.	10	0.1±0.0	.	.
Lonicera periclymenum	QF	S2.1	6	5	2	x	3	3	.	.	.	.	7	+	.	.	.	.	.	.
Salix caprea	Clear	T2.1	7	x	3	6	7	7	.	.	.	.	7	0.1±0.1	.	.	.	.	.	.
Solidago virgaurea	x	H2.1	5	x	x	5	x	4	.	.	.	.	7	+	.	.	.	.	.	.
Valeriana officinalis	GH	H2.1	7	6	5	8~	7	5	.	.	.	.	7	+	.	.	.	.	.	.
Hedwegia ciliata.var. *ciliata* (M)	x	M2.2	9	x	5	2	2	1	.	.	.	.	7	0.3±0.3	.	.	3	+	.	.
Genista tinctoria	GH	H2.1	8	6	3	6~	6	1	.	.	.	.	.	.	.	.	10	+	.	.
Lapsana communis	Dist	H2.1	5	6	3	5	x	7	.	.	.	.	.	.	.	.	10	+	.	.
Scrophularia nodosa	QF	H2.1	4	5	3	6	6	7	.	.	.	.	.	.	.	.	10	+	.	.
Calamagrostis arundinacea	x	H2.1	6	5	4	5	4	5	.	.	.	.	.	.	.	.	7	+	.	.
Brachythecium salebrosum var. *salebrosum* (M)	x	M2.1	6	4	5	4	6	5	.	.	.	.	.	.	.	.	7	0.1±0.1	.	.
Paraleucobryum longifolium (M)	QF	M1.1	4	3	6	4	1	2	.	.	.	.	.	.	.	.	7	+	.	.
Holcus mollis	QF	H2.1	5	5	2	5	2	3	.	.	.	.	.	.	.	.	3	+	.	.
Vicia sepium	x	H2.1	x	x	5	5	6	5	.	.	.	.	.	.	.	.	3	+	.	.
Cephaloziella divaricata (M)	x	M2.2	9	x	5	2	4	2	.	.	.	.	.	.	.	.	3	+	.	.
Dicranum viride (M)	QF	M1.1	5	5	7	5	7	nv	.	.	.	.	.	.	.	.	3	+	.	.
Lophozia bicrenata (M)	x	M2.2	8	x	4	3	2	1	.	.	.	.	.	.	.	.	3	+	.	.
Plagiothecium cavifolium (M)	x	M1.1	4	2	6	5	6	2	.	.	.	.	.	.	.	.	3	+	.	.
Pohlia nutans (M)	x	M2.1	5	x	5	4	2	nv	.	.	.	.	.	.	.	.	3	+	.	.

Table S1. Continued

	Com	FA	EIV						Grünberg (GB-DF)				Eselskopf (EK-DF)				Adelsberg (AB-NAT)			
			L	T	C	M	R	N	n = 13				n = 14				n = 29			
									2005		2017		2005		2017		2001		2016	
									F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE
Scapania nemorea (M)	x	M2.1	4	4	5	5	2	2	.	.	.	.	.	.	.	.	3	+	.	.
Tetraphis pellucida (M)	x	M2.1	3	3	5	6	1	3	.	.	.	.	.	.	.	.	3	+	.	.
Newly occurring across SFR																				
Pinus strobus	nd	T1.1	nv	nv	nv	nv	nv	nv	.	.	15	+	.	.	.	.	.	.	.	.
Bryum capillare (M)	x	M2.1	5	x	5	5	6	4	.	.	8	+	.	.	.	.	.	.	3	+
Eurhynchium praelongum (M)	x	M2.1	6	4	5	6	5	5	.	.	.	.	.	.	14	0.1±0.1	.	.	.	.
Polygonatum multiflorum	QF	H1.1	2	x	5	5	6	5	.	.	.	.	.	.	7	+	.	.	.	.
Polgonatum verticillatum	OF	H2.1	4	4	2	5	4	5	.	.	.	.	.	.	7	+	.	.	.	.
Fissidens bryoides (M)	x	M2.1	4	x	5	5	6	5	.	.	.	.	.	.	7	+	.	.	.	.
Ptilium crista-castrensis (M)	CF	M1.2	4	2	6	6	3	2	.	.	.	.	.	.	.	.	.	.	7	+
Carex sylvatica	QF	H1.1	2	5	3	5	6	5	.	.	.	.	.	.	.	.	.	.	3	+
No consistent change or only small changes over time across SFR																				
Fagus sylvatica	QF	T1.1	3	5	2	5	x	x	100	6.1±0.9	100	4.4±1.1	86	2.0±0.5	100	2.6±0.5	93	7.4±1.5	97	7.2±1.2
Mnium hornum (M)	x	M1.1	5	3	4	6	3	4	46	0.1±0.0	46	0.1±0.1	71	1.6±0.6	71	0.6±0.1	21	0.1±0.1	7	+
Dicranella heteromalla (M)	x	M2.1	5	4	5	4	2	3	15	+	15	+	.	.	.	.	14	+	3	+
Abies alba	x	T1.1	3	5	4	x	x	x	8	0.1±0.1	15	0.1±0.1	.	.	.	.	.	.	7	+
Sorbus aucuparia	x	T2.1	6	x	x	x	4	x	8	0.1±0.1	8	+	21	0.1±0.0	14	0.1±0.1	.	.	.	.
Leucobryum glaucum (M)	CF	M2.1	5	3	4	7	1	2	8	+	.	.	.	.	.	.	10	0.1±0.1	3	+
Fissidens taxifolius (M)	x	M2.1	5	4	5	6	7	5	.	.	8	0.1±0.1	7	+	.	.	.	.	.	.
Isothecium myosuroides (M)	QF	M1.1	4	4	4	6	4	3	.	.	8	+	.	.	7	+	3	+	7	+
Corylus avellana	QF	S2.1	6	5	3	x	x	5	.	.	.	.	86	2.8±0.6	79	1.5±0.3	.	.	.	.
Melica uniflora	QF	H1.1	3	5	2	5	6	6	.	.	.	.	71	3.2±1.4	79	1.8±0.9	.	.	.	.
Digitalis.purpurea	Clear	H1.2	7	5	2	5	3	6	.	.	.	.	43	0.3±0.1	43	0.1±0.0	3	+	.	.
Poa chaixii	x	H2.1	6	5	4	5	3	4	.	.	.	.	36	0.2±0.1	29	0.2±0.1	.	.	.	.
Acer pseudoplatanus	QF	T2.1	4	x	4	6	x	7	.	.	.	.	29	0.1±0.1	14	0.1±0.0	.	.	.	.
Sorbus aria	QF	T2.1	6	5	2	4	7	3	.	.	.	.	21	0.2±0.1	7	+	.	.	.	.
Milium effusum	QF	H1.1	4	x	3	5	5	5	.	.	.	.	14	+	14	+	.	.	.	.
Rhytidiadelphus squarrosus (M)	x	M2.2	7	3	6	6	5	4	.	.	.	.	14	0.1±0.0	7	0.2±0.2	.	.	.	.

Table S1. Continued

	Com	FA	EIV						Grünberg (GB-DF)				Eselskopf (EK-DF)				Adelsberg (AB-NAT)			
			L	T	C	M	R	N	2005		2017		2005		2017		2001		2016	
									F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE	F	mCv±SE
Festuca altissima	QF	H1.1	3	5	3	5	4	6	.	.	.	.	7	+	7	0.1±0.1	.	.	.	.
Galium saxatile	GH	H2.1	7	5	2	5	2	3	.	.	.	.	7	+	7	+	.	.	.	.
Sambucus nigra	x	S2.1	7	5	3	5	x	9	.	.	.	.	.	.	14	+	3	+	3	+
Betula pendula	x	T2.1	7	x	x	x	x	x	.	.	.	.	.	.	7	+	3	+	.	.
Dactylis glomerata	x	H2.2	7	x	3	5	x	6	.	.	.	.	.	.	7	+	7	+	.	.
Senecio sylvaticus	Clear	H1.2	8	6	3	5	5	8	.	.	.	.	.	.	7	+	3	+	.	.
Veronica officinalis	x	H2.1	6	x	3	4	3	4	.	.	.	.	.	.	7	+	7	+	.	.
Tilia cordata	QF	T1.1	5	5	4	5	x	5	.	.	.	.	.	.	.	.	86	1.5±0.3	93	2.0±0.4
Pteridium aquilinum	x	H2.1	6	5	3	5~	3	3	.	.	.	.	.	.	.	.	38	2.9±1.0	28	3.1±1.2
Isothecium alopecuroides (M)	QF	M1.1	5	4	6	5	6	5	.	.	.	.	.	.	.	.	21	+	3	+
Plagiochila porelloides (M)	x	M1.1	6	3	5	5	7	4	.	.	.	.	.	.	.	.	21	0.1±0.0	7	+
Carex pairae	Clear	H2.1	nv	nv	nv	nv	nv	nv	.	.	.	.	.	.	.	.	17	0.1±0.0	14	0.1±0.0
Festuca cinerea	GH	O	9	7	4	2	x	1	.	.	.	.	.	.	.	.	10	0.1±0.0	7	0.1±0.0
Danthonia decumbens	GH	H2.2	8	x	2	x	3	2	.	.	.	.	.	.	.	.	7	0.1±0.0	10	0.1±0.1
Polypodium vulgare	QF	H2.1	5	5	3	4	2	2	.	.	.	.	.	.	.	.	7	+	3	+
Calamagrostis epigejos	x	H2.1	7	5	7	x~	x	6	.	.	.	.	.	.	.	.	3	+	3	+

Figure S1. Impressions from the core areas of the strict forest reserves (SFRs) dominated by Douglas fir. a) Core area of the SFR Grünberg; b) Core areas of the SFR Eselskopf; c) Core area of the SFR Grünberg with dominating beech in the lower tree layer; d) Core area of the SFR Eselskopf in the stem exclusion stage.