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Supplementary Material

Tab. S1 - Species-specific equations for live biomass calculation (Forrester et al. 2017).

Species	Branch mass	Foliage mass	Root mass	Stem mass
Larix decidua	exp(-3.2409 + 2.1412 * log(dbh_mm * 0.1)) * 0.967330408815134	exp(-3.8849 + 1.7502 * log(dbh_mm * 0.1)) * 0.956852217638524	exp(-3.6347 + 2.3038 * log(dbh_mm * 0.1)) * 0.950649723440268	exp(-2.4105 + 2.424 * log(dbh_mm * 0.1)) * 1.01854983592874
Picea abies	exp(-3.3163 + 2.1983 * log(dbh_mm * 0.1)) * 1.00803763592252	exp(-2.1305 + 2.0087 * log(dbh_mm * 0.1) + (-0.0324 * ba_live_60)) * 1.04450283517212	exp(-3.7387 + 2.4323 * log(dbh_mm * 0.1)) * 1.18250040821357	exp(-2.5027 + 2.3404 * log(dbh_mm * 0.1)) * 1.05988395278679
Ulmus glabra	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Tilia cordata	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Sorbus aucuparia	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Abies alba	exp(-3.3163 + 2.1983 * log(dbh_mm * 0.1)) * 1.00803763592252	exp(-2.1305 + 2.0087 * log(dbh_mm * 0.1) + (-0.0324 * ba_live_60)) * 1.04450283517212	exp(-3.7387 + 2.4323 * log(dbh_mm * 0.1)) * 1.18250040821357	exp(-3.2683 + 2.5768 * log(dbh_mm * 0.1)) * 0.987286775425715
Acer	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Acer platanoides	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Alnus glutinosa	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Acer pseudoplatanus	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.0625 + 2.0662 * log(dbh_mm * 0.1)) * 1.00318132717147	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Betula pendula	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Sorbus	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Carpinus betulus	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Broadleaves	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302

Species	**Branch mass**	**Foliage mass**	**Root mass**	**Stem mass**
Coniferous	exp(-3.248 + 2.3695 * log(dbh_mm * 0.1) + (-0.0254 * ba_live_60)) * 1.00258646540519	exp(-2.6019 + 2.1097 * log(dbh_mm * 0.1) + (-0.0404 * ba_live_60)) * 1.01325784347909	exp(-4.0287 + 2.4957 * log(dbh_mm * 0.1)) * 1.16862165974986	exp(-2.7693 + 2.3761 * log(dbh_mm * 0.1) + (0.0072 * ba_live_60)) * 1.03850427882888
Fagus sylvatica	exp(-3.7694 + 2.8003 * log(dbh_mm * 0.1) + (-0.0247 * ba_live_60)) * 1.46653457042711	exp(-4.4813 + 1.9073 * log(dbh_mm * 0.1)) * 1.08751755461533	exp(-3.1432 + 2.3794 * log(dbh_mm * 0.1) + (-0.0125 * ba_live_60)) * 1.01677384871589	exp(-1.4487 + 2.1661 * log(dbh_mm * 0.1)) * 0.997918893742347
Salix spp.	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302
Corylus avellana	exp(-3.7241 + 2.4069 * log(dbh_mm * 0.1)) * 1.38607162595035	exp(-4.2286 + 1.8625 * log(dbh_mm * 0.1)) * 1.0636530778921	exp(-2.6183 + 2.1353 * log(dbh_mm * 0.1)) * 1.04671424207147	exp(-2.4521 + 2.4115 * log(dbh_mm * 0.1)) * 0.936149672763302

Tab. S2 - Species-specific wood density and decomposition-stage specific density reduction factors used in the calculation of deadwood biomass (Forrester et al. 2017, Zanne et al.2009, Harmon et al. 2008).

Species	Density (g/cm^3)	Decomposition stage	Relative density
Abies alba	0.35	1	0.979
Abies alba	0.35	2	0.848
Abies alba	0.35	3	0.604
Abies alba	0.35	4	0.438
Abies alba	0.35	5	0.309
Acer pseudoplatanus	0.51	1	0.941
Acer pseudoplatanus	0.51	2	0.709
Acer pseudoplatanus	0.51	3	0.533
Acer pseudoplatanus	0.51	4	0.317
Acer pseudoplatanus	0.51	5	0.241
Betula pendula	0.53	1	0.992
Betula pendula	0.53	2	0.66
Betula pendula	0.53	3	0.482
Betula pendula	0.53	4	0.309
Betula pendula	0.53	5	0.2
Broadleaves	0.54	1	0.95
Broadleaves	0.54	2	0.725
Broadleaves	0.54	3	0.575
Broadleaves	0.54	4	0.375
Broadleaves	0.54	5	0.3
Carpinus betulus	0.71	1	0.944
Carpinus betulus	0.71	2	0.734
Carpinus betulus	0.71	3	0.583
Carpinus betulus	0.71	4	0.37
Carpinus betulus	0.71	5	0.282
Coniferous	0.41	1	0.95
Coniferous	0.41	2	0.825
Coniferous	0.41	3	0.675
Coniferous	0.41	4	0.425
Coniferous	0.41	5	0.375
Corylus avellana	0.52	1	0.95
Corylus avellana	0.52	2	0.725
Corylus avellana	0.52	3	0.575
Corylus avellana	0.52	4	0.375
Corylus avellana	0.52	5	0.3

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Species	**Density (g/cm³)**	**Decomposition stage**	**Relative density**
Fagus sylvatica	0.59	1	0.976
Fagus sylvatica	0.59	2	0.614
Fagus sylvatica	0.59	3	0.479
Fagus sylvatica	0.59	4	0.375
Fagus sylvatica	0.59	5	0.25
Larix decidua	0.47	1	0.956
Larix decidua	0.47	2	0.827
Larix decidua	0.47	3	0.678
Larix decidua	0.47	4	0.426
Larix decidua	0.47	5	0.366
Picea abies	0.37	1	0.998
Picea abies	0.37	2	0.858
Picea abies	0.37	3	0.745
Picea abies	0.37	4	0.426
Picea abies	0.37	5	0.347
Salix spp.	0.35	1	0.944
Salix spp.	0.35	2	0.734
Salix spp.	0.35	3	0.583
Salix spp.	0.35	4	0.37
Salix spp.	0.35	5	0.282
Sorbus aucuparia	0.63	1	0.944
Sorbus aucuparia	0.63	2	0.734
Sorbus aucuparia	0.63	3	0.583
Sorbus aucuparia	0.63	4	0.37
Sorbus aucuparia	0.63	5	0.282
Tilia cordata	0.42	1	1
Tilia cordata	0.42	2	1
Tilia cordata	0.42	3	0.8
Tilia cordata	0.42	4	0.37
Tilia cordata	0.42	5	0.282

Tab. S3 - Species-specific carbon content used for converting biomass to carbon content (Matthews 1993).

Species	**Carbon content (%)**
Abies alba	50.59
Acer platanoides	50.00
Acer pseudoplatanus	50.00
Alnus glutinosa	50.20
Betula pendula	48.76
Broadleaves	49.61
Carpinus betulus	48.99
Coniferous	49.97
Corylus avelana	50.00
Fagus sylvatica	49.14
Larix decidua	49.78
Picea abies	49.34
Salix spp.	50.56
Sorbus aucuparia	50.00
Tilia cordata	49.40
Ulmus glabra	50.20

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Tab. S4 - Specific live tree microhabitat groups by forest category. Id of the plot, Density of observed trees, Density of TreM, Density of trees bearing TreM,1 - Burrs and cankers, 2 - Saproxylic fungi, 3 - Epiphytic and epixylic structures, 4 - Exudates, 5 - Woodpecker cavities, 6 - Rot holes, 7 - Insect galleries, 8 - Concavities, 9 - Injuries and exposed wood, 10 - Crown deadwood, 11 - Twig and tangles.

	Id	Tree density (N ha $^{-1}$)	TreM density (N ha $^{-1}$)	TreM tree density (N ha $^{-1}$)	1	2	3	4	5	6	7	8	9	10	11
Primary plots	1	773	340	280	0	1	4	11	0	0	0	3	27	5	0
	2	433	1060	367	3	2	29	1	0	6	0	64	17	37	0
	3	1147	207	140	2	0	2	2	0	0	0	17	6	2	0
	4	467	480	180	9	0	3	0	0	0	0	9	41	10	0
	5	753	487	213	7	1	2	3	0	7	3	26	7	17	0
	6	687	780	333	1	0	17	1	0	7	1	36	27	26	1
	7	1000	367	193	9	1	3	1	0	0	0	20	12	9	0
	8	753	893	360	10	0	8	8	0	1	2	62	28	15	0
	9	260	607	180	2	0	4	0	0	7	1	31	37	9	0
	10	460	953	387	0	1	0	1	0	19	0	47	36	39	0
	11	753	787	453	4	2	1	7	0	1	0	36	48	19	0
	12	853	1107	533	12	1	6	0	0	20	2	56	19	49	1
	13	313	913	247	1	5	2	0	0	10	0	51	49	19	0
	14	607	1160	440	11	1	5	0	0	18	7	91	12	29	0
	15	447	247	120	0	1	2	3	0	1	1	10	18	1	0
	16	367	1227	307	25	0	37	3	0	18	1	70	12	18	0
	17	1220	953	480	0	2	11	7	0	2	5	48	32	36	0
	18	473	1300	400	14	1	37	0	1	14	1	75	31	21	0
	19	720	493	293	3	0	3	4	0	4	0	9	17	34	0
	20	493	553	220	1	1	15	0	0	5	0	17	30	11	3
	21	400	273	133	1	0	10	2	0	2	2	6	15	3	0
	22	500	1360	367	25	4	16	10	2	20	5	54	39	29	0
	23	593	667	267	2	5	23	2	0	0	2	43	9	14	0
	24	340	720	200	13	0	3	1	0	13	8	39	18	13	0
	25	713	553	240	2	0	10	0	0	5	1	35	16	14	0
	26	1440	1907	773	22	5	41	0	1	8	14	75	61	59	0
Secondary old-growth plots	1	713	1287	520	1	4	7	0	0	4	2	99	31	39	6
	2	840	1213	467	2	1	14	1	0	10	2	107	9	33	3
	3	473	687	293	0	3	28	6	0	1	3	29	15	17	1
	4	547	867	300	0	2	9	0	2	4	3	90	9	8	3
	5	427	1140	273	6	7	23	0	0	12	6	88	20	9	0
	6	573	667	360	3	0	0	0	1	3	1	68	6	18	0
	7	520	733	373	1	1	11	0	0	8	0	61	3	21	4
	8	280	733	227	0	1	11	3	0	3	0	78	6	7	1
	9	247	407	173	1	0	12	0	3	4	2	28	10	1	0
	10	213	660	173	1	1	15	0	0	3	0	53	24	2	0
	11	213	393	147	9	0	4	1	0	4	2	25	10	4	0
	12	367	527	240	2	0	13	3	0	4	0	43	4	10	0
	13	420	553	220	4	4	15	1	0	6	4	35	8	6	0
	14	520	860	373	2	2	11	0	0	5	2	72	14	19	2
	15	807	1447	613	2	0	5	12	0	0	0	117	11	64	6
	16	853	907	407	9	4	11	5	0	12	2	37	16	40	0
	17	573	1153	360	6	9	34	0	1	13	3	66	22	18	1

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Tab. S5 - Specific Dead Tree Microhabitat Groups by Forest Category. Number of the plot, Density of observed trees, Density of TreM, Density of trees bearing TreM, 1 - Burrs and cankers, 2 - Saproxylic fungi, 3 - Epiphytic and epixylic structures, 4 - Exudates, 5 - Woodpecker cavities, 6 - Rot holes, 7 - Insect galleries, 8 - Concavities, 9 - Injuries and exposed wood, 10 - Crown deadwood, 11 - Twig and tangles):

	Id	Tree density (N ha $^{-1}$)	TreM density (N ha $^{-1}$)	TreM tree density (N ha $^{-1}$)	1	2	3	4	5	6	7	8	9	10	11
Primary plots	1	240	553	220	0	11	28	0	0	0	10	17	17	0	0
	2	53	133	40	0	0	1	0	0	0	5	2	11	1	0
	3	80	100	40	0	2	0	0	0	0	1	4	8	0	0
	4	120	47	47	0	2	0	0	0	0	0	0	5	0	0
	5	87	220	80	0	3	12	0	0	2	6	8	2	0	0
	6	27	93	20	0	2	2	0	0	0	2	3	5	0	0
	7	227	347	153	0	6	23	0	0	0	1	10	11	1	0
	8	127	327	127	0	2	23	0	0	0	9	10	5	0	0
	9	47	173	47	0	7	5	0	0	0	5	6	3	0	0
	10	73	233	60	0	3	1	0	0	0	5	14	11	1	0
	11	67	127	67	0	2	4	0	0	0	2	5	6	0	0
	12	107	173	107	0	0	2	0	0	0	6	1	15	2	0
	13	60	347	60	1	10	9	0	0	1	4	13	13	1	0
	14	60	373	60	0	2	4	0	2	6	7	22	13	0	0
	15	107	153	60	0	2	4	0	0	1	4	9	3	0	0
	16	87	540	87	0	3	28	0	0	2	13	21	14	0	0
	17	107	567	107	1	6	38	0	0	2	14	11	13	0	0
	18	93	453	93	0	5	16	0	0	0	14	12	21	0	0
	19	140	207	120	0	2	10	0	0	4	3	0	12	0	0
	20	27	173	27	0	4	9	0	0	0	2	7	4	0	0
	21	93	233	80	0	1	19	0	0	1	4	4	6	0	0
	22	93	580	93	0	2	44	1	0	0	12	12	15	1	0
	23	60	240	60	0	5	3	0	0	2	4	9	13	0	0
	24	67	513	67	0	11	25	0	0	8	10	13	10	0	0
	25	60	407	60	0	8	8	0	0	2	6	26	11	0	0
	26	47	253	33	1	4	8	0	0	2	4	9	10	0	0
Secondary old-growth plots	1	53	213	53	0	2	1	0	0	1	4	13	11	0	0
	2	40	373	40	0	7	7	0	0	1	6	29	6	0	0
	3	47	253	47	0	4	21	0	0	0	3	6	4	0	0
	4	20	47	20	0	0	1	0	0	0	2	1	3	0	0
	5	27	120	27	0	6	4	0	0	1	3	1	3	0	0
	6	47	140	47	0	2	3	0	0	2	5	3	6	0	0
	7	60	260	60	0	0	12	0	0	0	5	8	14	0	0
	8	53	267	53	0	1	12	0	0	0	5	9	13	0	0
	9	13	80	13	0	2	2	0	0	0	2	4	2	0	0
	10	20	153	20	0	1	3	0	0	0	2	8	9	0	0
	11	60	427	60	0	8	11	0	0	0	8	23	14	0	0
	12	127	480	127	0	3	18	0	0	1	13	17	20	0	0
	13	40	240	40	0	2	6	0	6	1	6	9	6	0	0
	14	87	433	87	0	10	7	0	0	4	9	17	17	0	1
	15	227	720	200	0	7	5	0	1	0	16	25	53	1	0
	16	273	227	100	0	5	5	0	0	3	6	5	9	1	0
	17	53	247	33	0	5	2	0	1	3	4	5	17	0	0