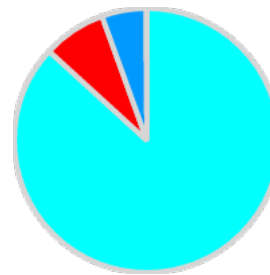


27/07/2021 gruppo C 27lug

Site conditions

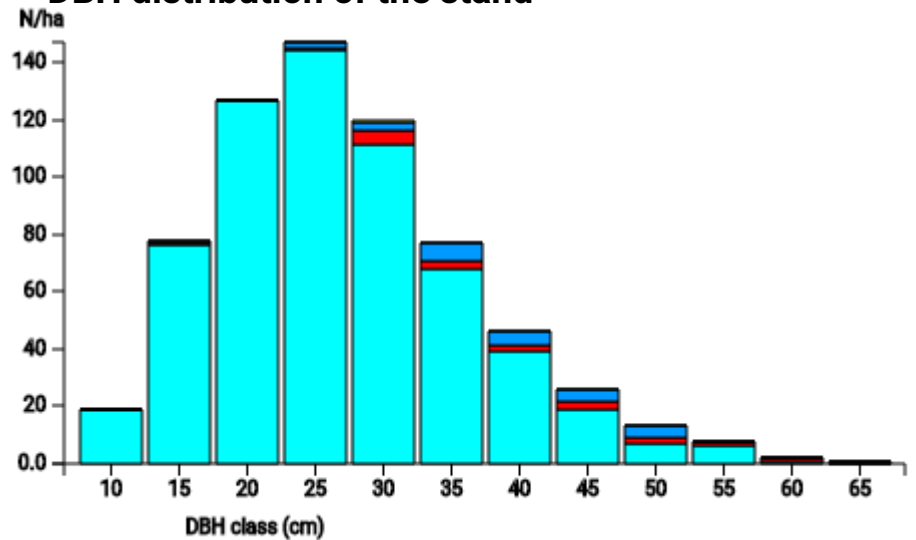
Altitude: 1270 m.a.s.l.
 Forest ecological region: Tuscany
 Geology / Bedrock: Sandstone
 Soil type: Brown podzolic soil
 Natural forest community:
 Asperulo-Fagetum
 Mean annual temperature: 8.7 C;
 Mean annual precipitation: 1642 mm;
 Ownership: State;
 Establishment: 2020

Tree species distribution by volume (in %)



- common beech: 86.8 %
- silver fir: 7.7 %
- sycamore maple: 5.4 %
- goat willow: 0.1 %

DBH distribution of the stand



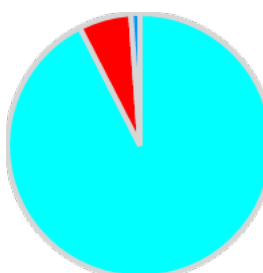
Initial stand (details by tree species)

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	617	44.3	484	41247	19808	1283
goat willow	1	0.1	0.8	70	24	3
silver fir	21	3.3	43.1	3060	245	25
sycamore maple	25	3.2	29.9	2409	1664	99
Total	664	50.8	557.9	46786	21741	1410

Removed trees

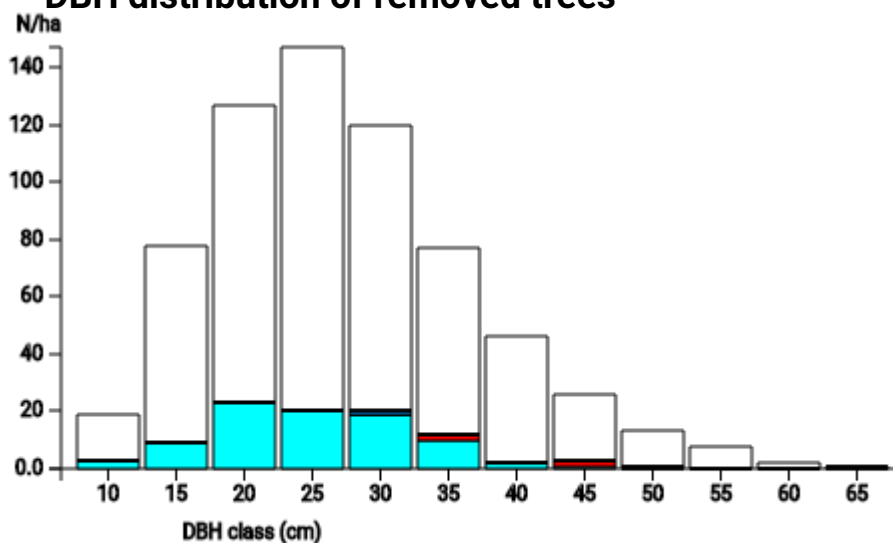
Volume: 75.2 m³
 Basal area: 6.7 m²
 Economic value: 6167 €
 Habitat value: 1160 pts.

Removed trees (N in %)



- common beech: 92.6 %
- silver fir: 6.4 %
- sycamore maple: 1.1 %
- goat willow: 0 %

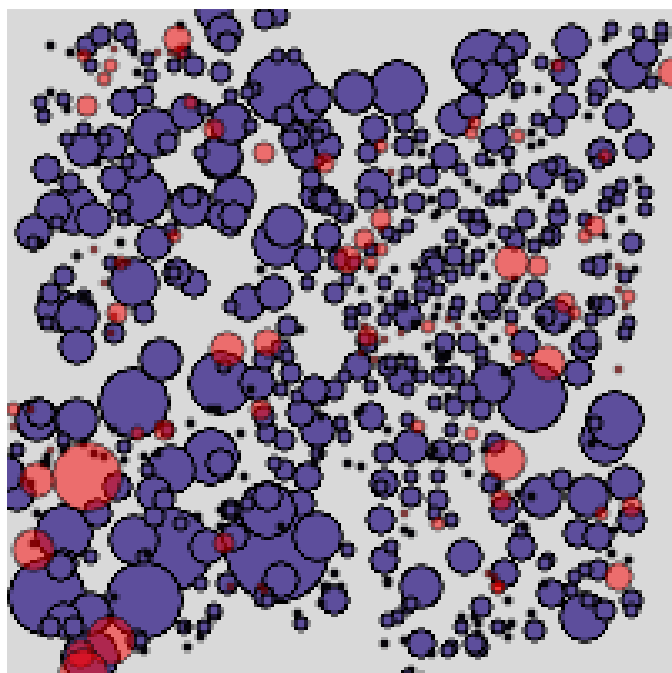
DBH distribution of removed trees



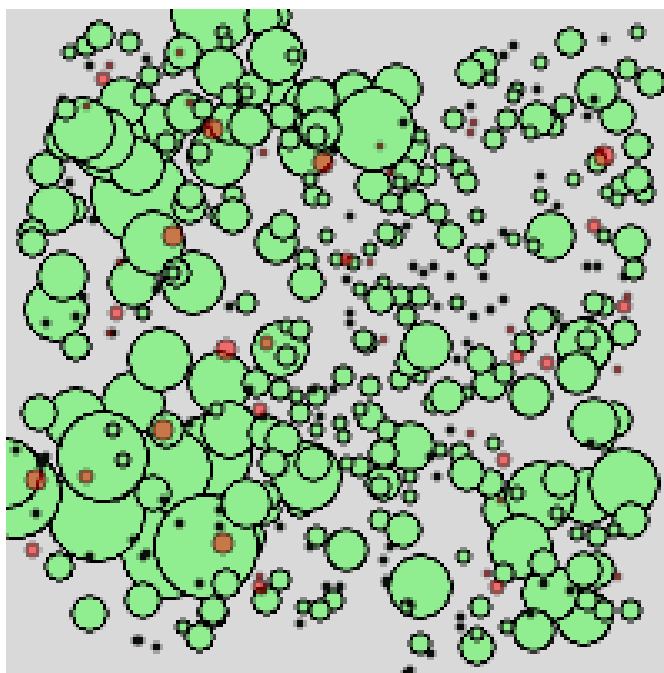
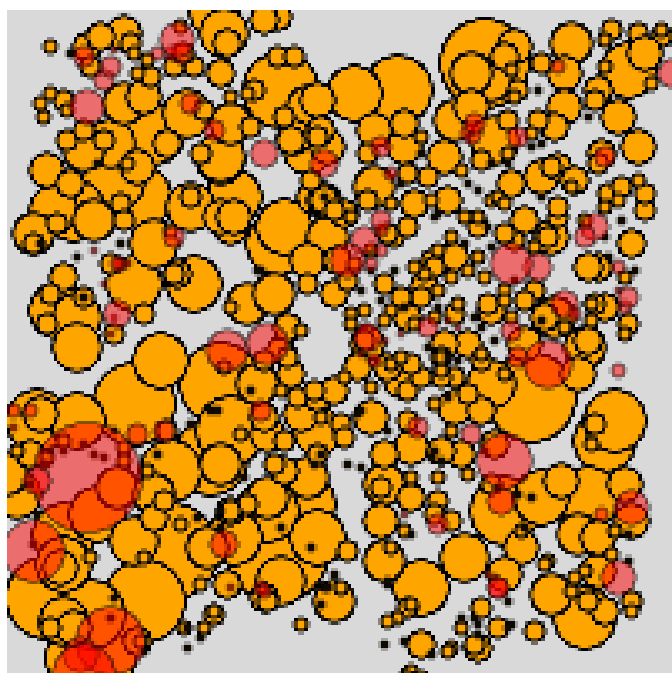
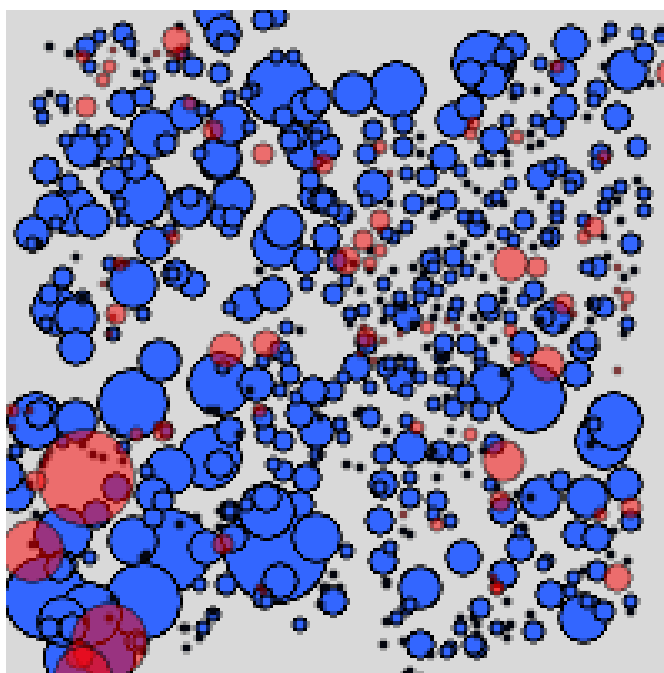
Removed trees (details by tree species)

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	87	5.5	58.9	5036	1050	87
goat willow	0	0	0	0	0	0
silver fir	6	1.1	15.5	1069	106	13
sycamore maple	1	0.1	0.7	62	4	1
Total	94	6.7	75.2	6167	1160	101

Economic value [EUR]



Habitat value

Basal area [m²]Volume [m³]**Description:**

Red circles (removed trees); circle size according to numerical values (e.g. large circles mean high values); trees with very low values (e.g. habitat value "0") are not visible.

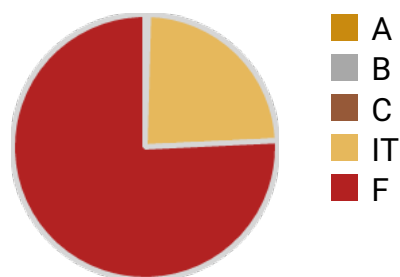
Economic values

Total value of removed trees: 6167 €
 Percentage of total stand value: 13.2 %
 Stand value after harvest: 40620 €

Economic value by tree species [€]

Tree species	Total	Per m ³
common beech	5036	85
silver fir	1069	69
sycamore maple	62	84
goat willow	0	0
Total	6167	82

Wood quality distribution (m³ in %)



Quality class	m ³	%
A	0	0
B	0	0
C	0.3	0.4
Industrial Timber	17.5	23.8
Fuelwood	55.8	75.8

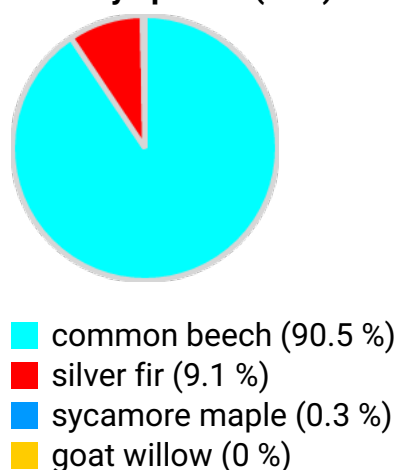
Habitat values

Total habitat value of removed trees: 1160 pts.
 Percentage of total stand value: 5.3 %
 Stand value after harvest: 20581 pts.

Habitat value by tree species [pts.]

Tree species	Total	Per m ³	Microhabitats [N]
common beech	1050	17.8	87
silver fir	106	6.8	13
sycamore maple	4	5.4	1
goat willow	0	0	0
Total	1160	15.4	101

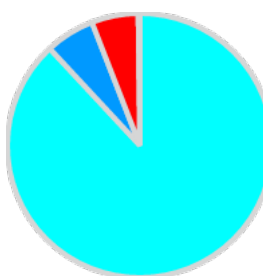
Habitat value (points) of removed trees by species (in %)



Remaining stand

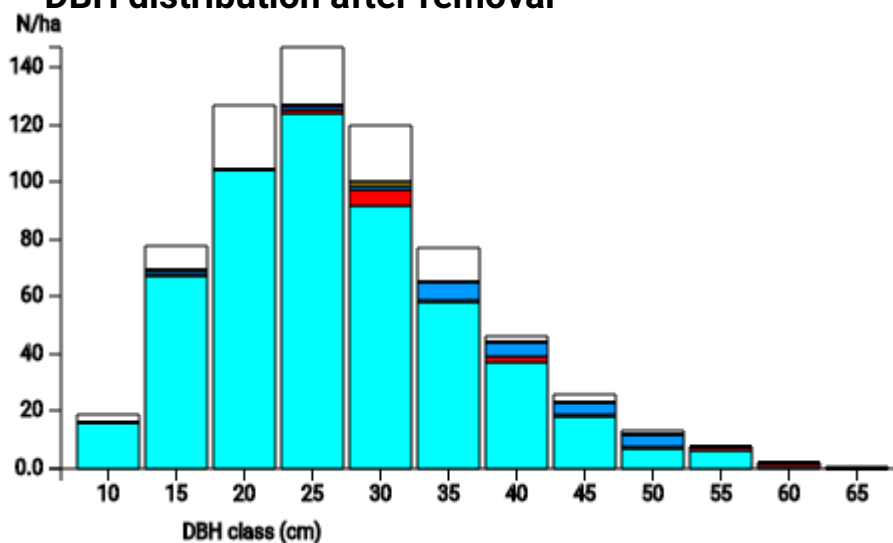
Volume: 483 m³
 Basal area: 44.5 m²
 Economic value: 40620 €
 Habitat value: 20581 pts.

Remaining trees by volume (m³ in %)



- common beech: 88.1 %
- sycamore maple: 6 %
- silver fir: 5.7 %
- goat willow: 0.2 %

DBH distribution after removal



Remaining stand (details by tree species)

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	530	38.8	425.1	36211	18758	1196
goat willow	1	0.1	0.8	70	24	3
silver fir	15	2.1	27.6	1991	139	12
sycamore maple	24	3.2	29.2	2347	1660	98
Total	570	44.2	482.7	40619	20581	1309

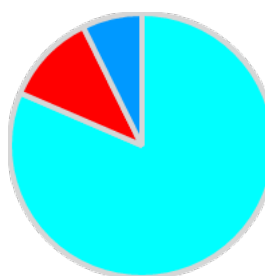
Retention treesVolume: 58.4 m³

Elite trees: 30

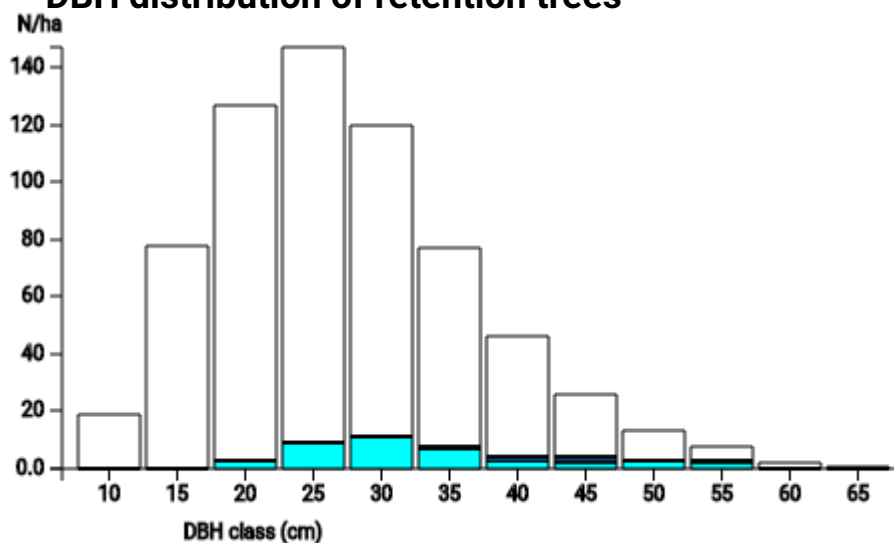
Habitat trees: 12

Economic value: 4826 €

Habitat value: 2682 pts.

Retention trees by volume (m³ in %)

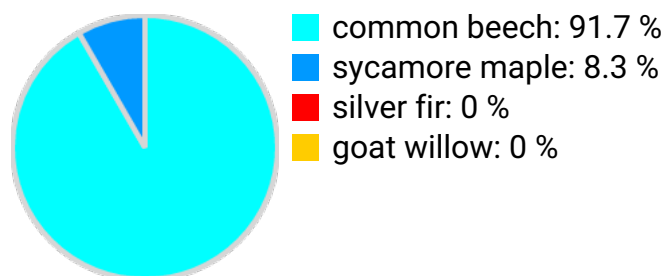
- common beech: 81.5 %
- silver fir: 11.2 %
- sycamore maple: 7.3 %
- goat willow: 0 %

DBH distribution of retention trees**Retained trees (details by tree species)**

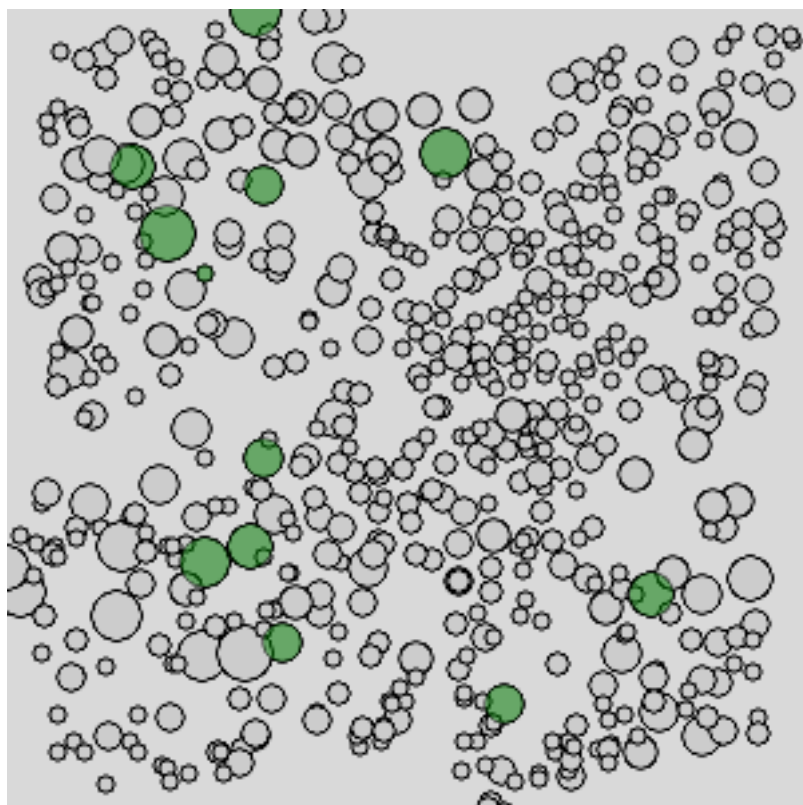
Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	40	4.2	47.6	4062	2435	136
goat willow	0	0	0	0	0	0
silver fir	2	0.5	6.5	402	7	2
sycamore maple	3	0.4	4.3	362	240	13
Total	45	5.1	58.4	4826	2682	151

Number of habitat trees	[N]	12
Habitat value	pts.	1841
	[% of total]	8.5
Economic value	[€]	1935
	[% of total]	4.1
Number of microhabitats	[N]	84
	[% of total]	6

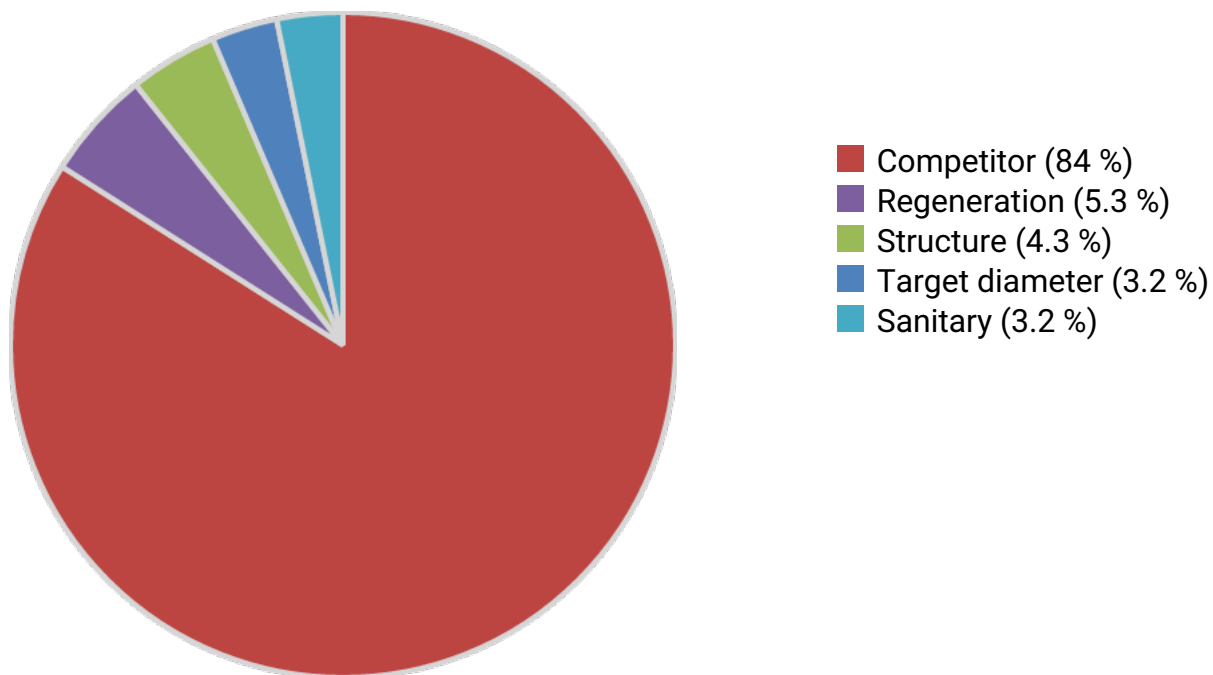
Habitat tree distribution by species (N in %)



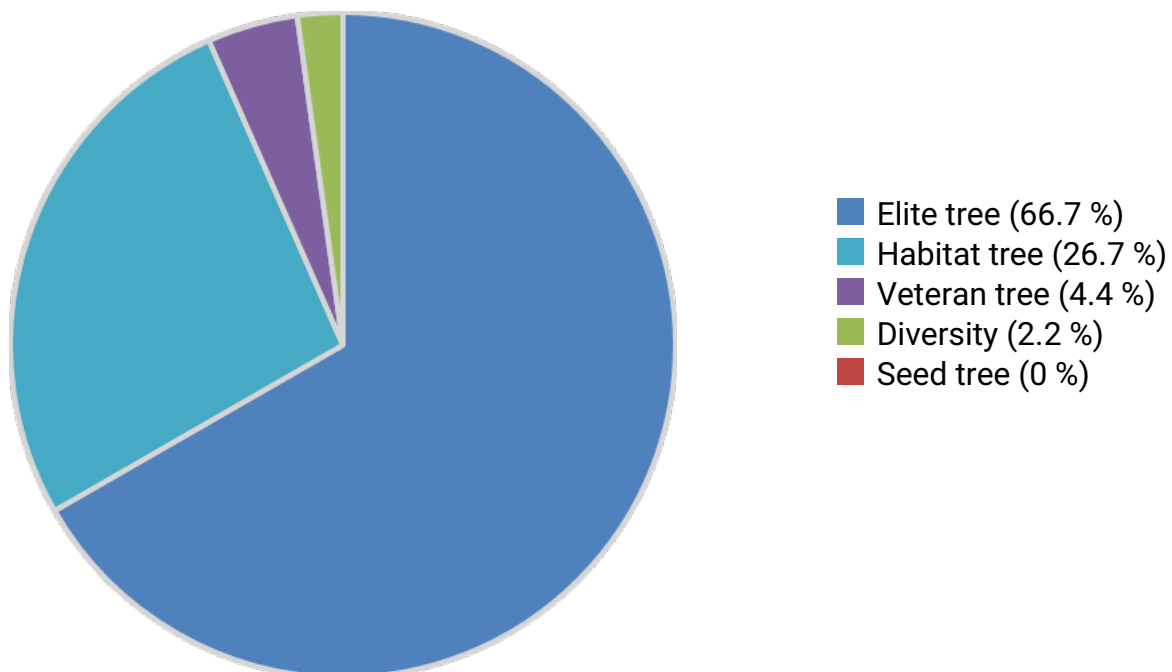
Spatial distribution of habitat trees



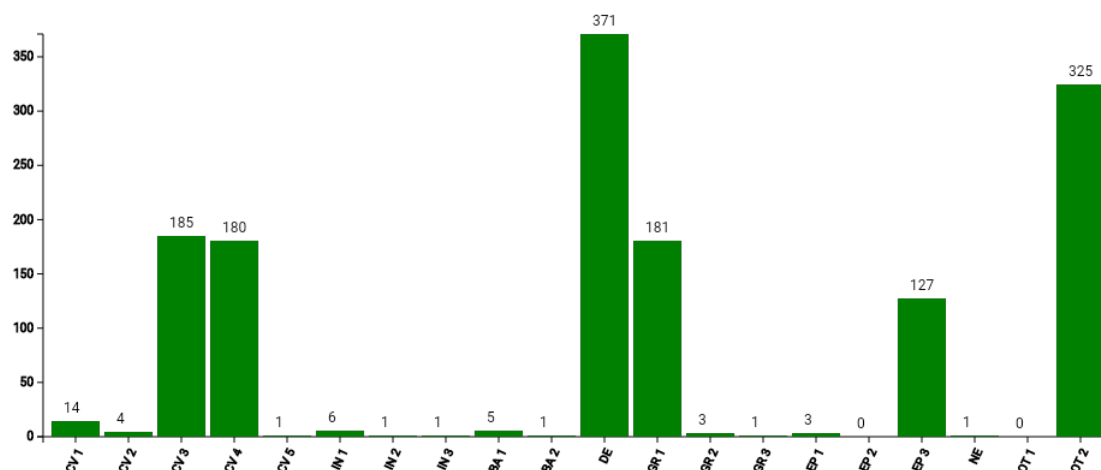
Reasons for removal



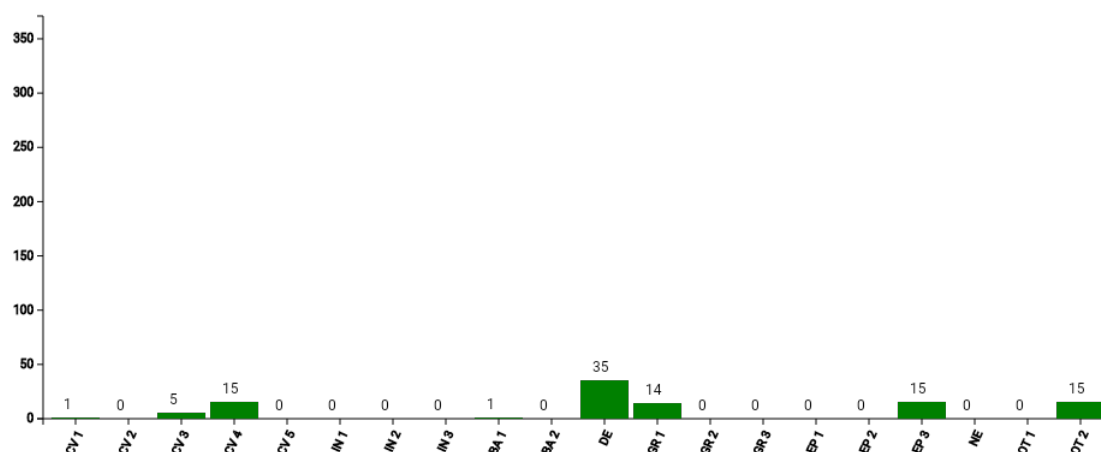
Reasons for retention



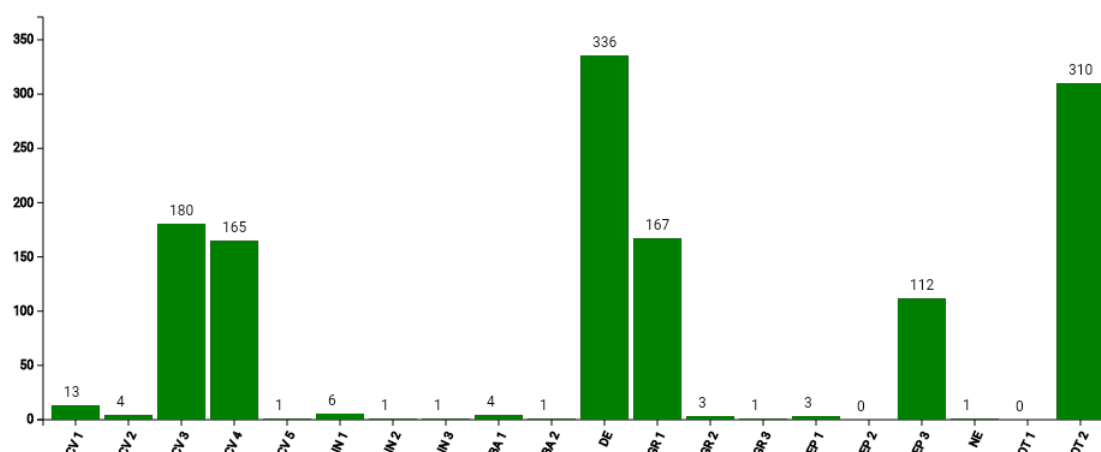
Distribution of tree microhabitats by code (N total)



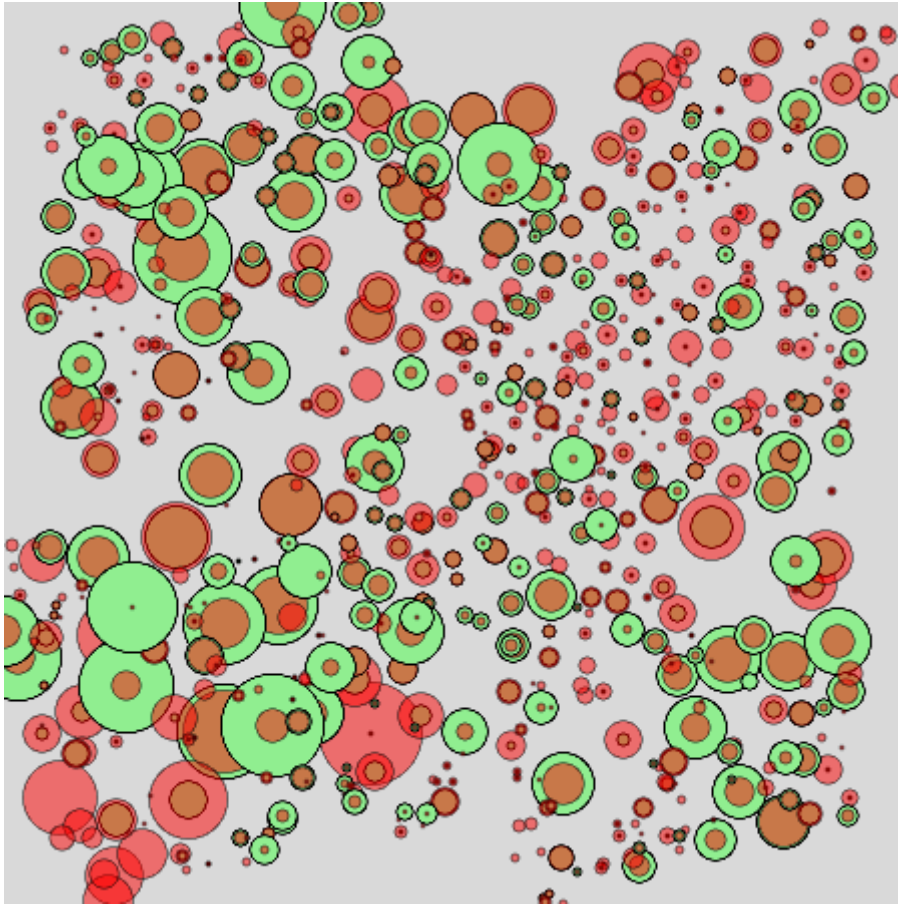
Removed tree microhabitats by code (N removed)



Remaining tree microhabitats by code (N after harvest)



For more details on codes consult the field guide "Catalogue of tree microhabitats" or the tree microhabitat app.

Conflict trees (stand data)**Description:**

Overlay of economic and habitat value: red circles (economic value), green circles (habitat value); circle size according to numerical values (e.g. large circles mean high values); trees with very low values are not visible. Trees where both values overlap considerably represent so called "conflict trees".

Removed trees

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
silver fir (469) Abies alba	65.5	0.34	4.3	277	34	Target diameter
silver fir (480) Abies alba	53.2	0.22	3.5	197	0	Competitor
silver fir (484) Abies alba	49.2	0.19	2.7	155	24	Target diameter
silver fir (500) Abies alba	48.3	0.18	2.6	204	4	Competitor
common beech (564) Fagus sylvatica	46.5	0.17	1.8	155	36	Competitor
common beech (536) Fagus sylvatica	43	0.15	1.7	139	32	Sanitary
common beech (71) Fagus sylvatica	40.5	0.13	1.5	128	6	Competitor
common beech (385) Fagus sylvatica	39.7	0.12	1.5	126	45	Competitor
common beech (384) Fagus sylvatica	39.5	0.12	1.3	113	28	Competitor
common beech (192) Fagus sylvatica	37.8	0.11	1.3	114	36	Competitor
common beech (251) Fagus sylvatica	37	0.11	1.2	107	0	Structure
common beech (315) Fagus sylvatica	36.9	0.11	1.1	93	10	Competitor
common beech (511) Fagus sylvatica	36.7	0.11	1.3	109	9	Target diameter
common beech (505) Fagus sylvatica	36.2	0.1	1.1	92	6	Competitor
silver fir (499) Abies alba	36.1	0.1	1.3	112	4	Competitor
common beech (177) Fagus sylvatica	35.7	0.1	1.1	94	42	Competitor
common beech (3) Fagus sylvatica	35.5	0.1	1.2	102	10	Structure
common beech (574) Fagus sylvatica	35	0.1	1.1	90	8	Regeneration
silver fir (488) Abies alba	35	0.1	1.1	124	40	Structure
common beech (418) Fagus sylvatica	34.9	0.1	1.1	90	52	Competitor
common beech (181) Fagus sylvatica	34.6	0.09	1.1	95	0	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (38) Fagus sylvatica	34.2	0.09	1	84	0	Competitor
common beech (28) Fagus sylvatica	34.1	0.09	1	83	36	Competitor
common beech (226) Fagus sylvatica	33.6	0.09	1.1	93	18	Structure
common beech (58) Fagus sylvatica	33.6	0.09	1	89	0	Competitor
common beech (200) Fagus sylvatica	32.9	0.09	1	89	6	Competitor
common beech (304) Fagus sylvatica	32.6	0.08	0.9	79	27	Competitor
common beech (155) Fagus sylvatica	31.5	0.08	0.9	77	3	Competitor
common beech (284) Fagus sylvatica	31	0.08	0.7	62	12	Competitor
common beech (549) Fagus sylvatica	30.8	0.08	0.8	67	21	Sanitary
common beech (380) Fagus sylvatica	30.8	0.08	0.8	71	36	Competitor
common beech (429) Fagus sylvatica	30.7	0.07	0.9	73	40	Competitor
common beech (621) Fagus sylvatica	30.5	0.07	0.8	66	3	Competitor
common beech (245) Fagus sylvatica	30.4	0.07	0.9	73	42	Competitor
sycamore maple (431) Acer pseudoplatanus	30.3	0.07	0.7	62	4	Competitor
common beech (82) Fagus sylvatica	30.2	0.07	0.8	65	0	Competitor
common beech (152) Fagus sylvatica	30.2	0.07	0.8	65	9	Competitor
common beech (24) Fagus sylvatica	30	0.07	0.7	64	48	Competitor
common beech (274) Fagus sylvatica	30	0.07	0.8	65	42	Competitor
common beech (547) Fagus sylvatica	29.6	0.07	0.8	66	36	Sanitary
common beech (35) Fagus sylvatica	29.6	0.07	0.6	54	6	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
common beech (283) Fagus sylvatica	29.4	0.07	0.7	57	36	Competitor
common beech (247) Fagus sylvatica	29.3	0.07	0.7	63	12	Competitor
common beech (605) Fagus sylvatica	29.2	0.07	0.7	62	0	Competitor
common beech (585) Fagus sylvatica	29.1	0.07	0.7	59	8	Competitor
common beech (580) Fagus sylvatica	28.9	0.07	0.8	65	27	Regeneration
common beech (10) Fagus sylvatica	28.7	0.07	0.7	60	9	Competitor
common beech (250) Fagus sylvatica	28.7	0.07	0.6	52	9	Competitor
common beech (104) Fagus sylvatica	28.5	0.06	0.7	60	12	Competitor
common beech (138) Fagus sylvatica	28.5	0.06	0.7	57	0	Competitor
common beech (103) Fagus sylvatica	28	0.06	0.6	52	12	Competitor
common beech (581) Fagus sylvatica	28	0.06	0.8	66	0	Regeneration
common beech (288) Fagus sylvatica	27.9	0.06	0.6	49	0	Competitor
common beech (296) Fagus sylvatica	27.4	0.06	0.7	62	14	Competitor
common beech (64) Fagus sylvatica	26.6	0.06	0.6	54	6	Competitor
common beech (167) Fagus sylvatica	26	0.05	0.5	47	6	Competitor
common beech (183) Fagus sylvatica	25.5	0.05	0.6	50	20	Competitor
common beech (501) Fagus sylvatica	25.2	0.05	0.5	39	32	Competitor
common beech (263) Fagus sylvatica	25	0.05	0.5	39	6	Competitor
common beech (494) Fagus sylvatica	24.8	0.05	0.6	47	0	Competitor
common beech (198) Fagus sylvatica	24.2	0.05	0.4	38	0	Competitor
common beech (13)	24	0.05	0.4	35	3	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (297) Fagus sylvatica	23.9	0.05	0.5	38	0	Competitor
common beech (471) Fagus sylvatica	23.8	0.04	0.5	40	0	Competitor
common beech (37) Fagus sylvatica	23.7	0.04	0.5	41	0	Competitor
common beech (523) Fagus sylvatica	23.6	0.04	0.6	50	0	Competitor
common beech (397) Fagus sylvatica	23.3	0.04	0.4	32	36	Competitor
common beech (253) Fagus sylvatica	23.3	0.04	0.4	35	6	Competitor
common beech (398) Fagus sylvatica	23.3	0.04	0.5	39	12	Competitor
common beech (516) Fagus sylvatica	23.1	0.04	0.4	35	8	Competitor
common beech (153) Fagus sylvatica	22.8	0.04	0.4	32	8	Competitor
common beech (168) Fagus sylvatica	22.7	0.04	0.4	36	6	Competitor
common beech (492) Fagus sylvatica	22.5	0.04	0.3	28	0	Competitor
common beech (285) Fagus sylvatica	21.5	0.04	0.3	29	0	Competitor
common beech (303) Fagus sylvatica	21.4	0.04	0.4	33	0	Competitor
common beech (164) Fagus sylvatica	21.2	0.04	0.3	29	0	Competitor
common beech (118) Fagus sylvatica	21	0.04	0.4	32	0	Competitor
common beech (197) Fagus sylvatica	20.8	0.03	0.3	30	15	Competitor
common beech (11) Fagus sylvatica	20.5	0.03	0.3	26	0	Competitor
common beech (205) Fagus sylvatica	20.5	0.03	0.3	28	0	Competitor
common beech (298) Fagus sylvatica	20.4	0.03	0.3	29	0	Competitor
common beech (491) Fagus sylvatica	20.3	0.03	0.3	26	0	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
common beech (305) Fagus sylvatica	19.7	0.03	0.3	24	0	Competitor
common beech (625) Fagus sylvatica	19.7	0.03	0.3	29	0	Competitor
common beech (117) Fagus sylvatica	19.2	0.03	0.3	26	0	Competitor
common beech (582) Fagus sylvatica	19	0.03	0.3	26	0	Regeneration
common beech (196) Fagus sylvatica	18.1	0.03	0.3	22	0	Competitor
common beech (302) Fagus sylvatica	17.5	0.02	0.3	21	12	Competitor
common beech (583) Fagus sylvatica	16.6	0.02	0.2	18	14	Regeneration
common beech (308) Fagus sylvatica	16.3	0.02	0.2	16	0	Competitor
common beech (420) Fagus sylvatica	16.3	0.02	0.2	15	0	Competitor
common beech (399) Fagus sylvatica	14.4	0.02	0.1	11	16	Competitor
common beech (493) Fagus sylvatica	13.1	0.01	0.1	8	0	Competitor
common beech (306) Fagus sylvatica	10.8	0.01	0.1	5	0	Competitor

Retention trees

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
silver fir (481) Abies alba	59.6	0.28	4	226	4	Elite tree
common beech (406) Fagus sylvatica	55.7	0.24	3	251	135	Habitat tree
common beech (218) Fagus sylvatica	55	0.24	3.2	271	76	Veteran tree
common beech (411) Fagus sylvatica	54.5	0.23	2.8	232	180	Habitat tree
common beech (279) Fagus sylvatica	50.5	0.2	2.5	216	221	Habitat tree
common beech (426) Fagus sylvatica	50.1	0.2	2.3	196	183	Habitat tree
silver fir (472) Abies alba	49.1	0.19	2.6	176	3	Elite tree
common beech (545) Fagus sylvatica	47.6	0.18	2.1	176	150	Habitat tree
common beech (629) Fagus sylvatica	46.8	0.17	2	166	136	Habitat tree
sycamore maple (417) Acer pseudoplatanus	46	0.17	1.4	120	136	Habitat tree
common beech (231) Fagus sylvatica	44.5	0.16	1.6	138	192	Habitat tree
sycamore maple (89) Acer pseudoplatanus	44	0.15	1.4	122	52	Elite tree
common beech (244) Fagus sylvatica	43	0.15	1.8	154	142	Habitat tree
common beech (290) Fagus sylvatica	42.6	0.14	1.6	139	176	Habitat tree
common beech (548) Fagus sylvatica	39	0.12	1.2	107	39	Veteran tree
common beech (47) Fagus sylvatica	38.7	0.12	1.4	119	0	Elite tree
common beech (506) Fagus sylvatica	38.5	0.12	1.1	97	80	Elite tree
common beech (18) Fagus sylvatica	38.2	0.12	1.1	96	6	Diversity
sycamore maple (576) Acer pseudoplatanus	36.8	0.11	1.4	120	52	Elite tree
common beech (151) Fagus sylvatica	36.6	0.11	1.1	96	184	Habitat tree
common beech (4)	36.5	0.11	1.1	96	59	Elite tree

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (209) Fagus sylvatica	35.2	0.1	1	90	36	Elite tree
common beech (379) Fagus sylvatica	34.8	0.1	0.9	79	20	Elite tree
common beech (137) Fagus sylvatica	34.2	0.09	1	90	38	Elite tree
common beech (419) Fagus sylvatica	33.1	0.09	1	89	54	Elite tree
common beech (171) Fagus sylvatica	32	0.08	0.9	74	6	Elite tree
common beech (57) Fagus sylvatica	32	0.08	0.9	73	6	Elite tree
common beech (254) Fagus sylvatica	31.4	0.08	0.7	64	48	Elite tree
common beech (289) Fagus sylvatica	31	0.08	0.7	63	22	Elite tree
common beech (383) Fagus sylvatica	30.8	0.08	0.8	69	6	Elite tree
common beech (19) Fagus sylvatica	30.3	0.07	0.7	61	25	Elite tree
common beech (428) Fagus sylvatica	30.2	0.07	0.8	65	76	Elite tree
common beech (509) Fagus sylvatica	30	0.07	0.8	70	6	Elite tree
common beech (301) Fagus sylvatica	29.4	0.07	0.8	71	12	Elite tree
common beech (307) Fagus sylvatica	28.8	0.07	0.7	60	6	Elite tree
common beech (502) Fagus sylvatica	28.5	0.06	0.6	53	20	Elite tree
common beech (606) Fagus sylvatica	28.1	0.06	0.7	60	0	Elite tree
common beech (246) Fagus sylvatica	28	0.06	0.7	56	39	Elite tree
common beech (620) Fagus sylvatica	27.9	0.06	0.7	61	0	Elite tree
common beech (36) Fagus sylvatica	26.1	0.05	0.6	48	0	Elite tree
common beech (189) Fagus sylvatica	26	0.05	0.5	46	6	Elite tree

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
common beech (273) Fagus sylvatica	25.2	0.05	0.6	49	6	Habitat tree
common beech (12) Fagus sylvatica	24.8	0.05	0.5	44	11	Elite tree
common beech (182) Fagus sylvatica	23.9	0.05	0.5	43	27	Elite tree
common beech (571) Fagus sylvatica	21	0.04	0.4	32	6	Elite tree